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**Comments in Response to
DRAFT Notice of Proposed Rulemaking
Prior to FAA submission
&
Prior to Federal Register publication**

Submitted by the
Aeronautical Repair Station Association

ONE COPY BY FACSIMILE TRANSMISSION

MEMORANDUM

TO: Aviation Rulemaking Advisory Committee

FROM: Jason Dickstein

DATE: August 15, 1997

RE: Proposed Draft NPRM for Recordkeeping

The Aeronautical Repair Station Association (ARSA) submits these comments in reference to the Proposed Draft Notice of Proposed Rulemaking for recordkeeping that is being considered by the Aviation Rulemaking Advisory Committee.

1 GENERAL CONCERNS

.1 Some Costs May Outweigh the Benefits

The proposal would vastly increase the records that must be maintained and transferred with products and parts. While many of these records exist for products in today's market, most parts in today's market do not have the records that this proposal would require. The proposal would require manufacturers to create 'birth records' for new parts that provide an appropriate foundation for the new recordkeeping requirements; however this does not solve the problems associated with records for parts that are already in the marketplace.

Participants in the marketplace that possess such parts would be required to develop complete historical records on the parts in order to make them economically viable under the proposed system. In many cases, this would represent an onerous and perhaps impossible job of detective work. Certainly the research and investigation necessary to develop the records anticipated under this system would cost more than the value of many parts.

Under this proposed system, the only other alternative is to scrap all of these parts that do not have complete historical records. This would render a tremendous inventory of otherwise airworthy parts to be ineligible for installation and transfer.

.2 Maintenance Certificated Entities Would Lose Certain Privileges

Under the current system, it is possible for a repair station or mechanic to take a part that has no documentation and determine its airworthiness through inspection, test and computation. The precise method for doing this depends on the part and its airworthiness characteristics. In some non-critical applications, dimensional testing may be sufficient; in other cases, a full range of engineering computations, like metallurgical analysis and magnetic/fluorescent testing, may be necessary to accurately determine airworthiness. If the part is airworthy with respect to the intended use, then part 43 permits installation.

The proposed regulations would limit the ability of a repair station to transfer a product or part following maintenance unless that product or part bears appropriate historical documentation, regardless of the airworthiness of the part.

.3 Definitions

The draft proposal introduces a wide variety of new definitions. Many of these definitions will be useful to the industry; however, the draft spreads these definitions throughout the FARs, often repeating definitions in several different parts.

There is no reason not to place the definitions in section 1.1. This is the appropriate place for definitions unless there is a specific reason for making a definition applicable only to a particular part or subpart.

The recommended definitions found in proposed sections 21.7(c), 43.1(c), 91.2, and 119.3 should all be moved to section 1.1.

.4 Using the Term "Part" Instead of "Component Part"

The Federal Aviation Regulations use the term "part" to refer to a logical division within the regulations (e.g. Part 11 represents the FAA's general rulemaking procedures). To distinguish this usage from the items that make up products, the regulations have referred to "component parts." This longer term is used, rather than just using the term "parts," because using the term "part" to describe both of these concepts could lead to confusion in the regulations.

The draft proposes to replace the term "component parts" with the phrase "components and parts." The preambulatory explanation for this change is that

component and part are distinguished in the industry. Nonetheless, they are not distinguished in the regulations. As a consequence, there is no sound regulatory reason for distinguishing "components" from "parts," so this regulatory distinction should not be made. The term "component parts" should remain and, if necessary, this term should be better described through a definition in section 1.1.

2 SPECIFIC CONCERNS, BY FAR SECTION

- .1 **new section 21.7(a)(1)** - This new section would require that all products and parts must be serialized, including all parts manufactured under approved processes. Many non-life limited parts today are not serialized. There is no regulatory requirement to serialize these parts because there is no safety justification for serialization. As there is regulatory requirement to serialize all parts, the requirement to record a serial number should be modified to apply only to serialized parts.
- .2 **new section 21.7(a)(3)** - This new section would require that the manufacturer track all airworthiness directives (ADs) that could be applicable to the part. Some parts are eligible for installation in more than one place, or in more than one type of aircraft. If the part is subject to one AD in one installation and to a different AD in another installation then each would have to be separately referenced by the documentation. This would be onerous and confusing. It would also be difficult to track for parts because ADs are issued against products and appliances, and not against parts. This AD tracking requirement under 21.7 should only be applied to products and appliances.
- .3 **amendment to 43.5** - The current version of this section does not include component parts. The proposal includes both components and parts. 14 C.F.R. § 43.5 directs the person performing maintenance to record changes in operating limitations as prescribed in 14 C.F.R. § 91.9. If the final "product" installation of the part is unknown, then it may be impossible to know whether the maintenance causes changes in operating limitations. It is also likely to be impossible to make the required record in the operating limitations to the extent that this provision is extended to parts. Therefore this section should not reference "components or parts."
- .4 **amendment to 43.7(d)** - The proposal would provide manufacturers with the authority to approve for return to service after repair; however manufacturers do not have the authority to perform a repair under 14 C.F.R. § 43.3(j) - only rebuild or alteration. There is inspection authority (which is not the same as repair) under 43.3(j)(3); therefore it may be appropriate to permit a manufacturer to approve an

item for return to service following rebuild, alteration or successful inspection pursuant to section 43.3(j)(3).

- .5 **amendment to 43.7(e)** - The proposal would permit a holder of a Part 119 certificate to approve a product or part for return to service. Part 119 does not authorize performance of maintenance by a certificate holder, so this subsection should not permit the 119 certificate holder to approve for return for service following maintenance.
- .6 **new subsection 43.9(a)(2)** - The proposed language includes a list of species of maintenance and directs the type of information that must be retained in the records reflecting such maintenance. The description of information to be kept under the proposal is specific as to certain functions and lacking as to others. This runs the risk of being inapplicable to special cases of maintenance that may require reference to alternate records in order to be accurate and useful; it also provides insufficient comparable guidance for non-listed species of maintenance.

This proposed language is more appropriate to an Advisory Circular (AC) than to a regulation. If it is to be published in an AC, then it should also be redrafted to make it clear that each of the subsections that describe a form of maintenance provides only an example of information that shall be included in the event that the maintenance or alteration performed is described by one or more of these subsections; the "as applicable" header language is both insufficient and confusing.

The solution to our immediate problem, what to do with the 43.9 regulatory language, is to replace the proposed 43.9(a)(2) in its entirety with the following text:

A description of work performed, and a reference to data acceptable to or approved by the Administrator.

- .7 **new subsection 43.9(b)** - The proposal would add a section that directs compliance with appendix B. This provision is redundant and should be omitted. It adds nothing that does not already exist in appendix B.
- .8 **amendment to subsection 43.9(c)** - This proposed exclusion for inspection records would include part 121, which is not currently included, and all of part 135 (currently only certain inspections are addressed). In the current form, holders of certificates issued under Parts 121 and 135 are only excluded from compliance with 14 C.F.R. § 43.9 if they have continuous airworthiness maintenance programs under their certificates - the proposal would exclude the inspections conducted by these certificate holders from section 43.9 even if they did not have continuous airworthiness maintenance programs. Also, holders of certificates issued under Parts 121 and 135 with continuous airworthiness maintenance programs are currently excluded from 43.9 because their own approved recordkeeping systems

are sufficient. The proposal would only exclude them for purposes of inspections, but not other maintenance - there is no safety justification for this change.

- .9 **amendment to 43.11(a)** - Air carriers holding certificates issued under parts 121 and 129 are currently excluded from compliance with 14 C.F.R. § 43.11. The proposal would require them to comply with section 43.11. Note that Part 43 is not applicable to aircraft operated under Part 129 (except certain aircraft operated under section 129(b)); as a consequence, this change should not be made unless the applicability statement of part 43 is to be comparably amended.
- .10 **amendment to 43.15(a)** - Air carriers holding certificates issued under parts 121 and 129 are currently excluded from compliance with 14 C.F.R. § 43.15. The proposal would require them to follow the inspection program for the aircraft. It should be made clear that the FAA interprets "inspection program for the aircraft" to mean the air carrier's inspection program, as opposed to the manufacturer's. Note that Part 43 is not applicable to aircraft operated under Part 129 (except certain aircraft operated under section 129(b)); as a consequence, this proposed change should not be made unless the applicability statement of part 43 is to be comparably amended.
- .11 **amendment to 43.16** - Air carriers holding certificates issued under part 129 are currently excluded from compliance with 14 C.F.R. § 43.16. That section requires performance of all maintenance according to instructions published either in the Instructions for Continued Airworthiness or the carrier's approved operating specifications. The proposal would require them to follow the inspection program for the aircraft. It should be made clear that the FAA interprets "inspection program for the aircraft" to mean the air carrier's inspection program, as opposed to the manufacturer's. Note that Part 43 is not applicable to aircraft operated under Part 129 (except certain aircraft operated under section 129(b)); as a consequence, this proposed change should not be made unless the applicability statement of part 43 is to be comparably amended.
- .12 **amendment to Part 43 Appendix Bx(a)(2)** - The present version of this provision requires that the duplicate 337 be provided to the owner of the part or product. The proposal would permit the mechanic or air agency to provide that information to the owner or operator. In some cases, where the operator bears contractual responsibility for maintenance, it may be burdensome for the mechanic or air agency to identify the owner. The mechanic or air agency may not realize that the operator is not the owner. This appears to be a sound change - by permitting the mechanic or air agency to provide the duplicate 337 to the operator with which it is conducting business, this rule change will facilitate appropriate recordkeeping while

eliminating a potentially burdensome or confusing requirement to provide the duplicate 337 to the owner.

- .13 **amendment to section 91.401** - Under current regulations, those who hold certificates issued under parts 121, 129, or 135 do not need to comply with the recordkeeping requirements of 14 C.F.R. § 91.417, nor the transfer of maintenance record requirements of 14 C.F.R. § 91.419. The proposed changes would make those two sections applicable to the above-listed certificate holders. Under current regulations, these certificate holders must comply with the transponder test requirements of 14 C.F.R. § 91.413, and they must periodically test their emergency locator transmitters. The proposed changes would change these requirements such that no transponder test nor ELT test would be required by Part 91 for such certificate holders, as long as they had a continuous maintenance program. This appears to remove the regulatory basis for performing such tests according to the FAR standards, which means that a continuous maintenance program could be certificated with much less stringent standards.
- .14 **amendment to 91.417** - Subsection (a)(9) would require the owner or operator of an aircraft, airframe, aircraft engine, propeller, appliance, component, or part to maintain the current status of applicable airworthiness directives for each aircraft, airframe, aircraft engine, propeller, appliance, component, or part. An airworthiness directive may only be applied against an aircraft, aircraft engine, propeller or appliance. See 14 C.F.R. 39.1. Therefore, this new language should be limited to only apply to records kept on an aircraft, aircraft engine, propeller or appliance.
- .15 **amendment to 91.417** - subsection (a)(12) would require the owner or operator of a product or part to maintain evidence indicating that the product or part has been produced pursuant to a certificate, approval, or authorization provided by the Administrator. There is no regulatory requirement imposed on the owner or operator to possess an "approved" product or part; therefore it does not make sense to require a record of such.
- .16 **amendment to 91.417** - subsection (c) would require the owner or operator who receives a discrepancy list to retain that list with the aircraft records until the discrepancies are repaired. Repair is not the only possible resolution to a discrepancy. This language should be reworded to reflect this. A solution would be to replace the word "repaired" with the word "corrected":

Each owner or operator who receives a list of discrepancies furnished under Section 43.11(b) of this chapter must retain a list of these discrepancies until the discrepancies are corrected and the aircraft is

approved for return to service, or until the aircraft and the list of discrepancies is transferred.

- .17 **amendment to 91.419** - proposed subsection (c) would requires owner and operators who transfer an aircraft, airframe, aircraft engine, propeller, appliance, component, or part for the purpose of maintenance, preventive maintenance, rebuilding, or alteration to concurrently transfer information sufficient to ensure completion of the work to be performed. No document transferred to the repair station will "ensure" completion of the work performed. The word "ensure" should be changed to "support":

Each owner or operator who transfers an aircraft, airframe, aircraft engine, propeller, appliance, component, or part for the purpose of maintenance, preventive maintenance, rebuilding, or alteration must concurrently transfer information sufficient to support completion of the work to be performed.

- .18 **new section 91.425** - proposed subsection (b) would make commission of an offense listed in this section punishable against airman certificates and air agency certificates. Part 91 is not applicable to airmen nor to air agencies. Further, this expanded applicability is redundant of existing 14 C.F.R. § 43.12(b). This language should be limited only to the scope of applicability of part 91.

The commission by any person of an act prohibited under paragraph (a) of this section is a basis for suspending or revoking any applicable aircraft operation certificate held by that person.

- .19 **amendment to 129.14** - Proposed subsection (a)(2) would require a review of records to assure compliance with 14 C.F.R. § 91.420. Part 129 permits operation of foreign registered aircraft. 91.401(a) makes Subpart E of Part 91 generally applicable only to aircraft registered in the United States. Therefore, many Part 129 aircraft will not be subject to Part 91's maintenance requirements. Since the aircraft are not subject to the requirements of 14 C.F.R. § 91.420, it does not make sense to review records for compliance to that section.

- .20 **new section 145.65** - Proposed subsection (b) would require any repair station that keeps records in an electronic recordkeeping system to make all of those records available to the FAA and to the NTSB. To maximize the efficiency of an electronic recordkeeping system, the repair station is likely to want to include commercial data that falls outside the FAA's regulatory scope. It is easy to design report formats that will permit the viewing of the regulatory data by FAA personnel while protecting the commercial data from FAA inspection. To protect the repair

station confidential commercial and financial information as well as its proprietary data, the requirement to make records available to the FAA should be limited only to those records required to be kept under the Federal Aviation regulations.

Further, the NTSB does not have an absolute right to examine repair station records. The NTSB's investigative power is limited to records related to an accident investigation under chapter 11 of title 49, United States Code. The repair station's regulatory obligation to provide records to the NTSB should be no greater than the NTSB's statutory right to the records. The following language may represent an acceptable substitute.

Each repair station must, upon request, make the maintenance records that are required to be kept under this part and that are contained in the electronic recordkeeping system available to the Administrator or if the records are related to an accident investigation conducted under 49 U.S.C. chapter 11, then to any authorized representative of the National Transportation Safety Board.

- .21 **new section 145.67** - Proposed subsection (a)(1) would require that the repair station transfer the records specified in section 91.417(a), (b), (c), (d), and (g) to the receiving owner or operator. Many parts currently "in the system" do not bear these historical records. Some parts that are produced after the new rule is implemented will not necessarily bear this documentation, like standard parts and commercial parts. Further, if the repair station does not receive the product or part from a certificated entity (e.g. receipt from a distributor), the product or part may not bear all of these records. It would be overly burdensome to require repair stations to develop these records. This subsection should be removed from the draft.
- .22 **new section 145.67** - Proposed subsection (a)(2) would require that the repair station provide a basis for any decision not to approve an item for return to service. A repair station does not need a basis for a decision to refrain from approving an item for return to service. The decision to refrain from performing work may be purely a business decision, that falls outside of the FAA's safety jurisdiction. This subsection should be removed from the draft.
- .23 **new section 145.67** - Proposed subsection (a)(3) would require that the repair station certify the authenticity of the information contained in any records required to be transferred. Where the repair station has received the records from a third party and has not prepared them itself, the repair station has no basis upon which to certify the authenticity of the records. It would be impossible for a repair station to certify to the authenticity of records it had not prepared. This subsection should be removed from the draft.

- .24 **new section 145.67** - Proposed subsection (b) would require a repair station that transfers a product or part for the purpose of maintenance, preventive maintenance, or alteration to concurrently transfer information sufficient to ensure completion of the work to be performed. No document transferred to the repair station will "ensure" completion of the work performed. The word "ensure" should be changed to "support."

A repair station that transfers an aircraft, airframe, aircraft engine, propeller, appliance, component, or part for the purpose of maintenance, preventive maintenance, or alteration must concurrently transfer information sufficient to support completion of the work to be performed.

- .25 **new section 145.69** - Proposed subsection (a) would require that a repair station obtain copies of the records prepared pursuant to 14 C.F.R. § 21.7 when it acquires a product or part from a manufacturer. Some manufacturers may act as parts distributors as well. Such a manufacturer may not have complete 21.7 information for parts that it did not fabricate, especially if the parts were fabricated before the implementation date of the new rule. This subsection should be limited to circumstances where the manufacturer that is transferring the product or part actually fabricated the product or part.
- .26 **new section 145.69** - Proposed subsection (b) would require that the repair station obtain certain records at the time it accepts any product or part that is approved for return to service. Certain parts in the aviation industry will have been approved for return to service before the implementation date of these changes in this proposed recordkeeping rule. These parts are unlikely to bear the appropriate documentation required by the proposed rule change. This could have a devastating effect on the value of certain parts inventories. This subsection should be removed from the draft, or it should be limited to parts that were manufactured after a certain record date (such as the implementation date of the rule).
- .27 **new section 145.69** - Proposed subsection (c) would require that the repair station obtain a basis for any transferor's decision not to approve an item for return to service. No party needs a basis for a decision to refrain from approving an item for return to service. The decision to refrain from performing work may be purely a business decision, that falls outside of the FAA's safety jurisdiction. This subsection should be removed from the draft.
- .28 **new section 145.69** - Proposed subsection (d) would require a repair station that receives a product or part for the purpose of maintenance, preventive maintenance or alteration to concurrently transfer information sufficient to ensure completion of the work to be performed. No document transferred to the repair station will

"ensure" completion of the work performed. The word "ensure" should be changed to "support."

A repair station that receives an aircraft, airframe, aircraft engine, propeller, appliance, component, or part, for the purpose of performing maintenance, preventive maintenance, or alteration must ensure the receipt of the records sufficient to support completion of the work to be performed.



FAX TRANSMITTAL SHEET

TO: ARAC MAINTENANCE ISSUES GROUP- ACTIVE MEMBERS

FROM: DAVID LOTTERER PHONE: 202 857-1140 FAX: 202 429-5113
E-mail: david_lotterer@sba.com

THIS FAX CONSISTS OF 5 PAGES

SUBJECT: PROPOSED ARAC RECORDKEEPING RULE

The following comments express the RAA's analysis and recommendations on the proposed recordkeeping rule:

In evaluating this NPRM, I looked for the safety benefit that this rule would provide and if that was not present, then I for any other remedial feature such as making the existing rule more understandable. I did not find any safety benefit nor did I find the NPRM to be more understandable than the current rulemaking.

Obviously all regulations should provide a safety benefit since the FAA routinely fine people/companies or revoke their license for violating the regulations. Requirements that are not specifically related to safety or are administrative in nature (e.g. rules that are helpful to the FAA in conducting surveillance actions) should first be addressed by revising commercial contracts and FAA advisory materials before rulemaking changes are considered.

NPRM has No Safety Benefit:

AVIATION DAILY, June 18, 1997

FAA said it plans to fine FedEx \$187,500 for "failure to properly maintain records for 21 aircraft engines". FAA said an audit showed the JT8D engines were not in the carrier's computerized records management system, which tracks time takeoffs, landings and maintenance schedules. FAA said that for three engines, FedEx "lacked documentation regarding compliance with airworthiness directives, the time of last required overhaul and status of life-limited parts."

The stated justification of the subject NPRM focused on the ability to facilitate (i.e. make easier) the transfer of aircraft but that is more an economic issue than a safety issue. Under the existing rules, if the seller (or lessee) transfers the aircraft and the pertinent records for AD's, major structural repairs,

etc. are not available, the seller must conduct whatever conformity inspections are needed in order to satisfy the FAA that the aircraft is airworthy. This process has shown to be extremely effective in preventing unairworthy aircraft into operation. Are the existing rules on the book insufficient such that the FAA cannot determine from existing records that the aircraft is unsafe? The above Aviation Daily quote would lead you to believe that the FAA has adequate rulemaking now. **Nothing was stated in the NPRM for us to conclude that current regulations are inadequate.** If the seller now has more records does that provide the buyer the opportunity to conduct less inspections to determine the condition of the airplane? That may be a benefit to the buyer but again that is simply a contractual issue that can be resolved in most cases by thorough conformity inspections. If the Aloha accident taught our industry one thing, it is that aircraft records are no guarantee of an airplane's condition.

NPRM is Not Harmonized

Adoption of the proposed rule will only impose additional obligations on U.S. operators. Many aircraft are transferred from operators/owners in other countries. Nothing was mentioned in the supplementary information to suggest that the proposed rule had been harmonized. If the (foreign) operator holds a FAA-approved FAR Part 129 maintenance program, that approval includes the records requirements of International Civil Aviation Organization (ICAO) Annex 6. Currently the FAA accepts the records of an aircraft purchased from a foreign operator if the operator's records are in compliance with the ICAO requirements and an operator certified record of current status. The proposed rule makes no mention of ICAO Annex 6. Operators from other countries will be unaffected by the adoption of this rulemaking to the economic detriment of U.S. operators and manufacturers.

NPRM is Not Cost Justified

Since the cost-benefit analysis was not provided, RAA assumes that the savings to industry that have been touted at the various briefing session are based upon the ability to digitize the recordkeeping data. RAA submits that the majority of changes provided in the NPRM are not necessary in order for the FAA to approve the conversion of paper to a digital data process. The NPRM states often that operators can continue to maintain paper records if they so choose. The NPRM's cost justification should therefore not be based on savings from converting to digital data process when it is considered as an **option**.

NPRM does Not Clarify the Existing Rule:

If the proposed rule will not improve on safety and is not harmonized, will it then make the existing rules on recordkeeping more understandable? The fact that the NPRM is 220 pages long is not a good indication. Specific comments on where the NPRM is confusing are provided below.

RAA Supports Conversion to Digital Data

RAA supports rulemaking that provide operators the ability to convert maintenance records to a digital data process as an option and suggest that ARAC separate these provisions of the NPRM from the document so the FAA can process such changes as a Miscellaneous Amendment. The FAA did this for manual requirements rule [FAR 121.133(b)]. This rule used to say that the manuals had to be in either paper or microfilm and they simply added the phrase "or other form acceptable to the Administrator. The FAA is proceeding with a conversion of Operation Specification paragraphs to a digital format for operators without any rulemaking changes being considered. In the Ops Spec

conversion program, the FAA is working with ARINC to provide the needed requirements for acceptance of a digital signature. Other ARAC groups have developed Advisory Circulars which could easily be converted to support a simple rulemaking change to provide for maintenance records in either paper or digital data formats.

COMMENTS ON SPECIFIC PROVISIONS

Section 21.7

(1) The FAA recently proposed a TSO for fasteners and will shortly propose other TSO's for seals and bearings. Presently the only category of parts that do not have direct FAA oversight are "standard parts". The ARAC Production Certification Issue group is working on a definition to account for some other parts by creating a "commercial part" category. This definition is not yet recognized by the FAA however. The FAA may in fact create many more TSO's to account for other proprietary parts that are routinely used on aircraft. If the NPRM is adopted in its current form it will impose the recordkeeping requirements for the millions of fasteners, seals, bearings, etc. that are used on aircraft and are scheduled to become TSO'd parts. The proposed language that distinguishes part from component leaves us no room to duck the issue. SECTION 21.7 SHOULD NOT BE REVISED UNTIL THE APPROVED PARTS ISSUE IS RESOLVED.

(2) "Part": The current term "component part" may be somewhat confusing but the distinction between component and part is no less confusing. The definition of part "one piece or two or more pieces that are joined together..." sounds like a component. What about a fire extinguishing bottle? Is it a part or component? The bottle may be several parts that are welded together. When you test the bottle you saw the neck off but reweld it back on after the test. It seems more accurate to state that a part is a part when it is identified by the manufacturer as a part; Similarly a component is a component when the manufacturer identifies it as a component. A rulemaking definition that distinguishes between parts and components serves no useful purpose. THE CURRENT TERM "COMPONENT PART" SEEMS WELL UNDERSTOOD AND SHOULD NOT BE CHANGED UNLESS SOMEONE COMES UP WITH A BETTER TERM.

(3) "Applicable Standard": The term "Applicable Standard" is too broad in meaning to be used as a unique term. All the regulations are referenced as "standards" and the adjective "applicable" does not narrow its meaning. Even the proposed definition is confusing. What the working group seems to be concerned about is to make sure that the unit of (interval) measurement does not change in mid-stream. It would be clearer to simply state the document that specifies the interval. For example, proposed 21.7 (a)(3) (iv) states:

The total time-in-service of the item to which the airworthiness directive applies when the required action was accomplished, as expressed by each applicable standard, if required by the airworthiness directive.

Why not simply state: *If additional actions are required, the measured interval since accomplishment of the required action, as expressed in the interval specified by the airworthiness directive.* In defining "applicable standard", the term "approved or acceptable to the Administrator" is simply a catch all phrase and does little to assist the reader in defining the term. *APPLICABLE STANDARD IS AN AWKWARD TERM AND SHOULD NOT BE USED.*

Sections 43.1 through 43.11

See comments on "component" and "part" in (Section 21.7); see comments on "English language" in Section 91.417; see comments on reference to a part's "name, number, and serial number and work order number" in Section 91.417.

Section 91.417

The phase-in period for compliance with these rules is stated only for (a)(6); yet other provisions go beyond what is now required. The Section-by-Section Analysis comments indicate that the phase-in period for compliance is as of the effective date. This of course is unacceptable since every owner/operator would be in non-compliance if it were adopted today. An analysis needs to be done to determine how much time owner/operators need to be in compliance with the provisions.

(a)(5), (6), (7) The terms time-in-service, specified time basis, etc. contradict with the term "each applicable standard" if the interval is expressed in cycles.

(a)(6) This should be part of (a)(5). The use of the word "history" is inappropriate in rulemaking. It is too broad in scope. If (a)(6) were made part of (a)(5), it should be (a)(5)(iii) and read "A record of any action that has altered the life limit of the part." What does the phrase "changed the parameters" add that is not provided by term "altered"?

(a)(12) This provision seems to be a catch-all provision that accounts for anything beyond those records required by (a)(1) thru (a)(11). The summary of this provision seems to exempt part 91 operation but it doesn't state that in the rule. Would this be applicable to accomplishment of a minor repair outside of a scheduled letter check? For example what about a minor repair in which a certain fastener is replaced. When this fastener is installed on an airplane, does this provision require that an operator keep the purchase records **on the fastener** until the aircraft is transferred? The requirements of (a)(12) plus (b)(4) seem to require that procurement records be kept on any change to the airplane. The reader needs to know what (a)(12) affects. If it is simply that owner/operators should use only approved parts, then the proposed provision is redundant. The use of the word "evidence" is inappropriate for this type of rulemaking. It is simply too broad in scope. The Section-by-Section Analysis section seems to indicate that the part's acceptance documents would constitute acceptable "evidence". If that is the case then simply state it. The "parts" issue alluded to under Section 23.7 regarding fasteners, seals and bearings creates confusion for this requirement as well. Even under the current "approved" parts confusion, proprietary fastener installed on aircraft and purchased directly from a non-PMA source is considered an approved part (at least by the operators).

Placing maintenance records requirements for everyone (91, 121, 135, etc.) into one provision may have been a good idea at the beginning but it is very confusing to determine what records are needed to be kept for each type of operation. You should not have to rely on the preamble in order to determine what records need to be kept.

(b)(3) & (4) Records in the English language:

The proposed requirement to have all the records in English will certainly make the records more understandable but this mean that an aircraft purchased from a foreign operator (e.g. Turkish Airlines) will have all the records in English at the time of transfer? If the seller does not choose to contract for

an English conversion of the records, this becomes a requirement that will have to be done by the buyer of the aircraft before the aircraft can be transferred. In a number of instances where the records may be unclear, the new owner may consider it cheaper to do conformity inspections but under the proposed rule, the new owner would have to obtain an exemption to deviate from the regulation in order to put the aircraft into service. I know of no U.S. carrier now that is preparing records in a language other than English. Why then is this requirement needed? **This type of requirement should be harmonized first before it is adopted.**

(b)(4) The reference to *transferred* is a condition that may never happen. Parts are scrapped, airplanes are scrapped. I assume then, that under this provision, the records should be maintained as long as the aircraft, engine, part, etc. remains in the possession (inventory) of the owner/operator. This of course brings us back to the problems associated with "approved parts" as previously discussed. RAA reads this as requiring purchase records for virtually every part on every airplane (the only exception being *standard parts*; e.g. NAS bolts, resistors, etc.). The FAA SUPS group recently proposed a draft AC (21-29B) which attempts to define approved parts. The industry has submitted requests for major changes to this document. Since this NPRM is dependant on FAA policy of what constitutes an approved part, ARAC should not release this NPRM until we know what FAA policy on approved parts really is.

Sections 91.419 and 91.420

Many of the problems described in 21.7 and 91.417 apply to these provisions since they refer back to the earlier provisions. There is also not an "escape" from the requirements of the provisions such that if the records are not complete, both the buyer and seller are in non-compliance with the regulations. To request an exemption under such circumstances in order to complete the transfer would of course be very time-consuming. These are the type of regulations (administrative) where adding the phrase "in any manner acceptable to the Administrator" makes sense.

DRAFT (7)

MAY 20 1997

1 [4910-13-P]

2 DEPARTMENT OF TRANSPORTATION

3 Federal Aviation Administration

4 14 CFR parts 21, 43, 91, 119, 121, 125, 129, 135, and 145

5 [Docket No. ; Notice No.]

6 RIN 2120-AD25

7 Maintenance Recordkeeping Requirements

8 AGENCY: Federal Aviation Administration, DOT.

9 ACTION: Notice of proposed rulemaking.

10 SUMMARY: This notice proposes amendments to the regulations
11 that prescribe the recording, retention, and transfer
12 requirements for certain maintenance records. Current
13 regulations prescribing these requirements do not reflect
14 advances that have occurred in aviation maintenance
15 technology, aircraft maintenance operations, and information
16 storage and retrieval systems used in maintenance
17 recordkeeping. The proposal would standardize maintenance
18 recordkeeping requirements and would facilitate the transfer
19 of aircraft, airframes, aircraft engines, propellers,
20 appliances, components, and parts among owners, operators,
21 manufacturers, and maintenance facilities. The proposed
22 rule also would permit the use of electronic signatures to
23 satisfy maintenance and certain operational record retention
24 requirements and set forth provisions for the optional use
25 of electronic maintenance recordkeeping systems.

1 **DATES:** Comments must be received on or before [insert date
2 XX days after date of publication in the Federal Register].

3 **ADDRESSES:** Comments on this notice should be delivered, in
4 triplicate, to: Federal Aviation Administration, Office of
5 the Chief Counsel, Attention: Rules Docket (AGC-200),
6 800 Independence Avenue, SW., Washington, DC 20591.

7 Comments delivered must be marked Docket No.

8 Comments also may be submitted electronically to the
9 following Internet address: 9-nprm-cmts@faa.dot.gov.

10 Comments may be examined in Room 915G weekdays between
11 8:30 a.m. and 5 p.m., except on Federal holidays.

12 **FOR FURTHER INFORMATION CONTACT:** William Henry, Avionics
13 and Air Agency Branch (AFS-350), Aircraft Maintenance
14 Division, Flight Standards Service, Federal Aviation
15 Administration, 800 Independence Avenue, SW.,
16 Washington, DC 20591; telephone (202) 267-3804.

17 **SUPPLEMENTARY INFORMATION:**

18 **Comments Invited**

19 Interested persons are invited to participate in the
20 making of the proposed rule by submitting such written data,
21 views, or arguments as they may desire. Comments relating
22 to the environmental, energy, federalism, or economic impact
23 that may result from adopting the proposals in this notice
24 also are invited. Substantive comments should be
25 accompanied by cost estimates. Comments should identify the
26 regulatory docket or notice number and should be submitted

1 in triplicate to the Rules Docket address specified above.
2 All comments received on or before the closing date for
3 comments specified will be considered by the Administrator
4 before taking action on this proposed rulemaking. The
5 proposals contained in this notice may be changed in light
6 of the comments received. All comments received will be
7 available, both before and after the closing date for
8 comments, in the Rules Docket for examination by interested
9 persons. A report that summarizes any contact with
10 Federal Aviation Administration (FAA) personnel concerning
11 the substance of this rulemaking will be filed in the
12 docket. Commenters wishing the FAA to acknowledge receipt
13 of their comments submitted in response to this notice must
14 submit a preaddressed, stamped postcard on which the
15 following statement is made: "Comments to Docket No. ."
16 The postcard will be date-stamped and returned to the
17 commenter.

18 **Availability of NPRM's**

19 Any person may obtain a copy of this Notice of Proposed
20 Rulemaking (NPRM) by submitting a request to the
21 Federal Aviation Administration, Office of Rulemaking,
22 Attention: ARM-1, 800 Independence Avenue, SW.,
23 Washington, DC 20591, or by calling (202) 267-9677.

24 Communications must identify the notice number of this NPRM.

25 Persons interested in being placed on the mailing list
26 for future NPRM's should request from the above office a

1 copy of Advisory Circular No. 11-2A, "Notice of Proposed
2 Rulemaking Distribution System," which describes the
3 application procedure.

4 **Background**

5 The regulations governing the content, retention, and
6 transfer of maintenance records have changed little since
7 they were first enacted. These rules were developed when
8 aviation maintenance technology, aircraft maintenance
9 operations, and information storage and retrieval systems
10 were far less complex than the systems and technology used
11 today. The growing complexity of aircraft and their systems
12 has caused a corresponding increase in the complexity of
13 maintenance tasks that are required to be accomplished to
14 ensure an aircraft's safe and efficient operation.
15 Transfers of aircraft, airframes, aircraft engines,
16 propellers, appliances, components, and parts among owners
17 and operators, which were relatively infrequent when these
18 regulations were enacted, have now become commonplace. For
19 example, according to FAA estimates, more than 50 percent of
20 the air carrier fleet is now leased, and 80 to 90 percent of
21 the fleet is forecast to be leased by the end of the
22 century.

23 In addition to the aircraft leasing arrangements that
24 permeate the air transportation industry, other types of
25 transfers among manufacturers, owners, operators, and repair
26 facilities, which were unknown when these regulations were

1 enacted, now also have become routine. A large number of
2 these transfers occur among owners and operators who conduct
3 their operations pursuant to sections of the regulations
4 with differing maintenance recordkeeping requirements.
5 Maintenance records accompanying these transfers, which meet
6 the recordkeeping requirements of the previous owner or
7 operator, must therefore be reviewed carefully to ensure
8 compliance with the maintenance recordkeeping requirements
9 that apply to the new owner or operator.

10 As both the complexity of aircraft maintenance
11 processes and the number of transfers of aircraft,
12 airframes, aircraft engines, appliances, propellers,
13 components, and parts has increased, the number of
14 maintenance records generated and required to be transferred
15 has grown accordingly. In an environment where leases and
16 other forms of transfers are common, information necessary
17 to document the airworthiness of an aircraft can become
18 exceedingly difficult to locate within the large quantity of
19 maintenance records that are required to be transferred
20 concurrent with the transfer of an aircraft. Inspections
21 conducted pursuant to the FAA's National Air Transportation
22 Inspection Program and its subsequent National Aviation
23 Safety Inspection Program (NASIP) have revealed a number of
24 instances where operators could not successfully document
25 the airworthiness of an aircraft following a transfer
26 because supporting maintenance records were unavailable.

1 To help the industry integrate new methods of
2 maintenance recordkeeping into the current regulatory
3 structure and to facilitate the transfer of items, while
4 continuing to ensure that adequate records are retained to
5 demonstrate airworthiness, the FAA designated maintenance
6 recordkeeping practices as an area for review by the
7 Aviation Rulemaking Advisory Committee (ARAC). The FAA
8 established the ARAC in February 1991 to provide advice and
9 recommendations to the Administrator concerning the full
10 range of the FAA's rulemaking activity with respect to
11 safety-related issues.

12 In August 1991, the Air Carrier/General Aviation
13 Maintenance Issues Group of the ARAC established the
14 Maintenance Recordkeeping Requirements Working Group. This
15 working group was tasked with the "development of an
16 advisory circular that will address the recordkeeping
17 requirements of the present FAR and development of an NPRM
18 that may include additional items and utilize the present
19 state-of-the-art for recording and retention of records" (56
20 FR 42373, August 27, 1991). The Maintenance Recordkeeping
21 Requirements Working Group conducted its first of
22 14 meetings in November 1991 and presented its
23 recommendations to the ARAC on [insert date]. The ARAC
24 accepted these recommendations, which now form the basis for
25 the changes proposed by the FAA in this NPRM.

26 **General Discussion of the Proposals**

1 The proposals would establish a uniform system of
2 maintenance record entry, record retention, and record
3 transfer requirements for aircraft manufacturers, owners,
4 operators, and repair stations. Standardizing these
5 requirements would simplify an owner's or operator's task of
6 demonstrating the airworthiness of an aircraft, airframe,
7 aircraft engine, propeller, appliance, component, or part,
8 and would permit an owner, operator, or repair station to
9 more readily use state-of-the-art electronic recordkeeping
10 systems to retain and transfer all required maintenance
11 records. The increased use of electronic recordkeeping
12 systems, which would occur as a result of the
13 standardization of maintenance recordkeeping requirements
14 and the recognition of electronic signatures as set forth in
15 this proposal, would result in significant cost reductions
16 to the aviation maintenance community and also facilitate
17 the transfer of aircraft, airframes, aircraft engines,
18 propellers, appliances, components, and parts among
19 manufacturers, owners, operators, repair facilities, and
20 maintenance personnel. Owners, operators, repair
21 facilities, and maintenance personnel also would be able to
22 more rapidly and accurately assess the airworthiness of any
23 item received, at a significant reduction in cost.

24 The proposal would ensure that a consistent set of
25 maintenance records accompanies an aircraft, airframe,
26 aircraft engine, propeller, appliance, component, or

1 part throughout its useful life. Specifically, the proposal
2 would: (1) define critical terms that relate to the
3 creation of maintenance record entries, the retention and
4 transfer of maintenance records, and the use and acceptance
5 of electronic and other forms of signatures; (2) expand and
6 standardize the required minimum content of a maintenance
7 record entry after the performance of maintenance,
8 preventive maintenance, rebuilding, or alterations;
9 (3) require manufacturers to provide specific records when a
10 new or remanufactured aircraft, airframe, aircraft engine,
11 propeller, appliance, component, or part is delivered;
12 (4) expand and standardize maintenance records that must be
13 retained and transferred with an aircraft, airframe,
14 aircraft engine, propeller, appliance, component, or part by
15 an owner or operator and centralize these record retention
16 and transfer requirements in 14 CFR part 91; (5) establish
17 provisions for the optional use of electronic recordkeeping
18 systems to retain and transfer all required maintenance
19 records and record entries; (6) revise the content
20 requirements for certificate holders' manuals to reflect the
21 use of standardized recordkeeping systems and permit
22 certificate holders to furnish the maintenance part of their
23 manuals to appropriate personnel by making it available in
24 printed form, or other form acceptable to the Administrator
25 that is retrievable in the English language; (7) establish a
26 requirement that in-service history records used to

1 determine the current status of life-limited parts be
2 retained by each owner or operator until transfer;
3 (8) revise the requirements for the transfer of records
4 pertaining to major repairs and allow Canadian maintenance
5 personnel to document major repairs and major alterations of
6 U.S.-registered aircraft with a Transport Canada Conformity
7 Certificate (Transport Canada Form 24-0045); (9) require
8 certificate holders with a Continuous Airworthiness
9 Maintenance Program approved under 14 CFR part 121 or 125,
10 or 14 CFR § 135.411(a)(2); repair stations certificated
11 under 14 CFR part 145; and persons operating U.S.-registered
12 aircraft pursuant to 14 CFR part 129 to include a review of
13 maintenance records in their inspection of incoming
14 aircraft, airframes, aircraft engines, propellers,
15 appliances, components, and parts; and (10) include a
16 section in part 91 prohibiting the falsification of
17 maintenance records required by that part. This preamble
18 will address the proposed changes; first through a
19 discussion of the principal issues, then in a
20 section-by-section analysis of the proposed rule.

21 Definition of Terms

22 To ensure a uniform understanding of terms included in
23 this proposal, the FAA would define in parts 21, 43, and 91
24 the terms "applicable standard," "component," "life-limited
25 part," "part," and "transfer." The FAA proposes to define
26 the term "signature" in parts 43, 91, and 119.

1 Throughout this proposal, the FAA intends to delete the
2 term "rotor" where the current rule refers to "airframe and
3 rotor," because "rotor" is included in the definition of
4 "airframe" found in § 1.1.

5 Applicable Standard

6 Currently, the FAA requires that the status of
7 life-limited parts, overhauls, inspections, and other
8 maintenance actions be recorded on a periodic basis. These
9 actions are measured according to various intervals. To
10 ensure that any maintenance action required to be performed
11 on a periodic basis is monitored according to hours, cycles,
12 calendar time, or another measuring parameter approved by or
13 acceptable to the Administrator, the FAA proposes to include
14 these intervals in its definition of the term "applicable
15 standard."

16 An applicable standard could be specified by: a
17 regulatory requirement; a maintenance program approved under
18 § 91.409(f)(4) or § 129.14; a Type Certificate, Provisional
19 Type Certificate, or Supplemental Type Certificate; an
20 operator's Operations Specifications; an approved
21 maintenance program; a Parts Manufacturer Approval; a
22 Technical Standard Order, special conditions, certification
23 maintenance requirements, or airworthiness limitations.

24 An applicable standard also could be found in
25 regulatory requirements such as airworthiness directives
26 (AD's). AD's frequently require that actions be repeated

1 and the applicable interval for the completion of these
2 repetitive maintenance actions found in the text of the AD
3 also would be considered an applicable standard. Operations
4 Specifications also could set an applicable standard, as
5 certain actions may need to be performed in accordance with
6 an operator's reliability program, which is contained or
7 referenced in an operator's Operations Specifications.
8 Applicable standards for periodic maintenance actions also
9 are frequently found on a Type Certificate Data Sheet, which
10 is part of a Type Certificate.

11 Component

12 Although many sections of the rules refer to the term
13 "component part," this term has not been defined in the
14 regulations. As industry practices differentiate between
15 the use of the terms "component" and "part," references to
16 the term "component part" in the regulations frequently lead
17 to varying interpretations by the public regarding the
18 applicability of the term to a specific item. This
19 ambiguity has prompted the industry and other regulatory
20 bodies to undertake actions to clarify the definition of
21 "component" and "part." For example, the Air Transport
22 Association (ATA)/International Air Transport Association
23 (IATA)/International Coordinating Council of Aerospace
24 Industries Association (ICCAIA) has separately defined the
25 terms "component" and "part" in the World Airlines Technical
26 Operations Glossary (WATOG). Canadian regulations clearly

1 distinguish between the terms; current § 43.17, which
2 authorizes Canadian persons to perform maintenance on
3 U.S. aeronautical products, separates the terms "component"
4 and "part" in its definition of the term "aeronautical
5 product." Additionally, requirements implemented by the
6 Joint Aviation Authorities (JAA) refer to either aircraft
7 "components" or aircraft "parts" but do not use the term
8 "component part."

9 In an effort to recognize current industry practices
10 and enhance the congruency between the regulations and other
11 international agreements and regulations, the FAA proposes
12 to define the term "component" as any self-contained part or
13 any combination of parts, subassemblies, or units that
14 perform a distinctive function necessary to operate a
15 system. All references to the term "component part" would
16 be deleted and replaced with the term "component or part".

17 Life-Limited Part

18 The preamble to Amendment No. 121-94, "Aircraft
19 Maintenance and Related Records," (37 FR 15981,
20 August 9, 1972), states that the term "life-limited parts"
21 refers to parts for which retirement times, service-life
22 limitations, parts-retirement limitations, retirement-life
23 limitations, or life limitations exist; however, the term
24 "life-limited part" is not defined in the regulations.
25 Because the FAA proposes to require the retention and
26 transfer of information pertaining to the current status of

1 life-limited parts, the proposal would define the term
2 "life-limited part" as any part for which a retirement-life,
3 service-life, part-retirement, or life limitation exists in
4 the type certificate for a product. These parts are
5 identified in accordance with § 45.14 or have been given a
6 life limit after delivery. An AD also may establish a life
7 limit for a part.

8 Part

9 For those reasons specified above in the discussion of
10 the definition of the term "component," the FAA proposes to
11 define the term "part" as one piece or two or more pieces
12 that are joined together and that are not normally subject
13 to disassembly without destruction of the designed use.
14 Standard parts, owner-produced parts, and parts produced
15 pursuant to Special Federal Aviation Regulation (SFAR)
16 No. 36 would specifically be included under the terms of
17 this definition of "part."

18 Signature

19 The proposal would define the term "signature" as a
20 form of identification used as a means of attesting to the
21 completion of an act and that authenticates a record entry.
22 A signature would be required to be traceable to the person
23 making the entry and would be permitted to be in
24 handwritten, electronic, or other form acceptable to the
25 Administrator. Affixation of a signature indicates the
26 completion of a record or record entry that may not be

1 altered except through the creation of a subsequent
2 superseding record.

3 The term "signature" in the current rules does not
4 contemplate electronic signatures. This limitation has
5 restricted owners, operators, and repair stations from
6 implementing complete electronic recordkeeping systems. The
7 proposed definition would permit an electronic entry or
8 other unique form of individual identification in lieu of a
9 handwritten signature on a record if adequate guarantees of
10 its authenticity are met. To be considered acceptable, an
11 electronic signature should retain the qualities of a
12 handwritten signature that guarantee its uniqueness. The
13 electronic signature would serve as an attestation of the
14 authenticity of a record or record entry and should contain
15 sufficient safeguards to prevent falsification of the
16 signature. The signature should not be affixed
17 automatically, but only through deliberate action of the
18 individual whose signature is represented.

19 An electronic signature could be in the form of a
20 digital signature (e.g., a message transformation using an
21 asymmetric crypto-system), a digitized image of a paper
22 signature, typed notations, or an electronic code. A
23 mechanic's stamp also could serve as a "signature." If a
24 form of identification other than a handwritten signature is
25 used, access to the use of that identification should be
26 limited to the named individual only. For example, a stamp

1 used as a signature should be secured when not in use by the
2 individual whom the stamp identifies. A computer entry that
3 is used as a signature should have restricted access that is
4 limited by an authentication code (password) that is changed
5 periodically. Access to stamps and authentication codes
6 should be limited to the user and security personnel. The
7 FAA emphasizes that all electronic entries may not
8 necessarily satisfy the criteria that would qualify an
9 electronic entry as an acceptable signature (i.e., be a form
10 of identification used as a means of attesting to the
11 completion of an act and as an authentication of a record
12 entry traceable to the person making the entry).

13 Adoption of the proposed definition of the term
14 "signature" would permit the use of an electronic
15 maintenance recordkeeping system and certain operational
16 recordkeeping systems (such as those that generate load
17 manifest, flight release, or airworthiness release records)
18 in which recourse to paper or other hard-copy documents
19 would not be required.

20 Transfer

21 The requirements of §§ 91.419, 121.380a, and 135.441
22 address the transfer of maintenance records pursuant to a
23 sale. In the current aviation environment, many different
24 types of transfers of aircraft, airframes, aircraft engines,
25 propellers, appliances, components, and parts frequently
26 occur. In recognition of these practices, the term

1 "transfer" would be defined as "the conveyance of an
2 aircraft, airframe, aircraft engine, propeller, appliance,
3 component, or part." A transfer signifies the change of any
4 right, title, or interest in the item transferred. A sale,
5 conditional sale, lease, rental, or borrow arrangement would
6 therefore constitute a transfer under the proposed
7 definition. A transfer also may occur when a person turns
8 over physical possession of an aircraft, airframe, aircraft
9 engine, propeller, appliance, component, or part solely for
10 the purpose of having work performed. Additionally, a
11 transfer may occur when physical possession of an item is
12 given to another party, even if this is done without
13 payment. Gifts and donations would be examples of such
14 transfers, as would be marketing arrangements in which
15 supplemental (nonrequired) equipment, such as entertainment
16 systems or telephones, are installed in an aircraft at no
17 cost to the operator. A loan or borrow of any aeronautical
18 product in accordance with approved Operations
19 Specifications would also constitute a transfer under this
20 proposal. The proposed definition would encompass not only
21 current methods of conveying items but also would anticipate
22 future methods of transferring an aircraft, airframe,
23 aircraft engine, propeller, appliance, component, or part.

24 Records transferred with an item could be transferred
25 in paper or microfilm form, as an electronic data
26 transferal, on a computer disk, or using any other coded,

1 electronic, or paper means acceptable to the Administrator.
2 The FAA emphasizes that although a transfer may occur in a
3 number of forms, an owner or operator need not provide the
4 transferee with physical custody of the accompanying
5 records. Such an occurrence typically would occur in the
6 case of an aircraft rental or in certain types of leases.
7 Proposed § 91.420(d) would permit the preceding owner or
8 operator to retain physical custody of the records; however,
9 the receiving owner or operator would not be relieved of the
10 responsibility to ensure that the records meet applicable
11 regulatory requirements and to make the records available
12 for inspection by appropriate FAA or NTSB personnel.

13 **Other Terms**

14 The proposal also addresses the concepts of "current
15 status" and "method of compliance," although they are not
16 specifically defined in the sections of the proposed rule.

17 Current Status

18 The FAA uses the term "current status" to denote the
19 existing airworthiness condition of an aircraft, airframe,
20 aircraft engine, propeller, appliance, component, or part.
21 This designation is expressed in terms of an applicable
22 standard, and the FAA may require an owner or operator to
23 demonstrate that an aircraft is airworthy through the use of
24 any appropriate records.

25 Method of Compliance

1 In the proposed rule, the term "method of compliance"
2 refers to actions taken to comply with the requirements of
3 an AD. A reference to the specific method would be required
4 if more than one method of compliance were permitted. The
5 reference to the specific method could include a reference
6 to the particular paragraph of an AD, a manufacturer's
7 service bulletin referenced in the AD, or an owner- or
8 operator-directed maintenance order that describes the
9 actual method of compliance. If an alternative method of
10 compliance were used, any reference should include a
11 complete description of the alternative method of compliance
12 used and a copy of the FAA approval. If the method of
13 compliance were a reference to a manufacturer's service
14 bulletin and the service bulletin has more than one method
15 of accomplishment, the reference would need to indicate the
16 specific method used.

17 Expansion and Standardization of the Minimum Content
18 Requirements for a Maintenance Record Entry

19

20 *Current Requirements*

21 Current § 43.9 establishes the requirements for a
22 maintenance record entry after a person performs
23 maintenance, preventive maintenance, rebuilding, or
24 alteration of an aircraft, airframe, aircraft engine,
25 propeller, appliance, component, or part. Currently a
26 maintenance record entry, as specified under § 43.9(a), must

1 include: (1) a description (or reference to data acceptable
2 to the Administrator) of the work performed; (2) the date of
3 completion of the work performed; (3) the name of the person
4 performing the work if other than the person who approved
5 the item for return to service; and (4) the signature,
6 certificate number, and kind of certificate held by the
7 person who approves an item for return to service.

8 Maintenance record retention and transfer requirements
9 for aircraft, airframes, aircraft engines, propellers,
10 appliances, components, and parts are governed by the rules
11 for the operation in which the items are used. As a result
12 of this practice, identical items can be accompanied by
13 different sets of maintenance records, depending on the type
14 of operation in which the item has been used. Many aircraft
15 parts and components, especially avionics, can be used on
16 numerous types of aircraft that may be operated under
17 different operating rules. Such items may be used on an
18 aircraft engaged in a specific operation governed by one
19 part of the regulations and may later be removed from that
20 aircraft, and either sold, placed in storage, or installed
21 on an aircraft engaged in an operation governed by a
22 different part of the regulations with different maintenance
23 recordkeeping requirements. Under the current rules, two
24 identical parts or components held by an owner, operator, or
25 repair station can be accompanied by different sets of
26 maintenance records. These differences between the

1 maintenance recordkeeping requirements for each operating
2 rule greatly hinder the ability of owners, operators, and
3 repair stations to transfer items among persons operating
4 under different parts of the regulations. Such differences
5 are apparent in recordkeeping systems where operators' stock
6 numbers, traceable to manufacturers' parts numbers, are
7 used.

8 *Proposed Requirements*

9 To standardize the contents of maintenance record
10 entries and facilitate not only the maintenance but also the
11 transfer of aircraft, airframes, aircraft engines,
12 propellers, appliances, components, and parts, the proposed
13 rule would establish one set of maintenance record entry
14 requirements. By specifying the minimum elements of a
15 maintenance record entry for all owners, operators,
16 maintenance personnel, and repair stations and by more
17 accurately explaining what information is required when
18 providing a description of work performed, the proposed rule
19 would establish a foundation upon which a standardized
20 system for the retention and transfer of maintenance records
21 would be based. By establishing these consistent
22 maintenance record entry requirements, the rule also would
23 ensure that a standard set of data would be used as the
24 basis for determining the airworthiness of any aircraft,
25 airframe, aircraft engine, propeller, appliance, component,

1 or part, regardless of the type of operation in which the
2 item has been or is currently being used.

3 Current § 43.9 requirements mandating that a
4 maintenance record entry contain the date on which the
5 maintenance, preventive maintenance, rebuilding, or
6 alteration was completed, and the name, signature,
7 certificate number, and kind of certificate held by the
8 person approving the work would remain unchanged in the
9 proposed rule. In addition to these requirements, the
10 proposal also would require that a specific reference
11 identifying the name, number, and serial number of an
12 appliance, component, or part (correlating to the
13 manufacturer's appliance, component, or part name, number,
14 and serial number), and applicable work order number(s), be
15 included in each maintenance record entry, if applicable.

16 The proposal also would permit a person to approve an
17 item for return to service by using other positive
18 identification that complies with the provisions of a
19 certificate holder's manual in lieu of that person's
20 handwritten signature, certificate number, and kind of
21 certificate. Such a change would further facilitate the use
22 of practices such as electronic maintenance entries,
23 employee stamps, and authorization codes, and would provide
24 certificate holders with greater flexibility in implementing
25 their maintenance programs.

1 Under the current rule, the inclusion of information
2 describing the work performed is required to be stated in a
3 maintenance record entry; however, the exact information to
4 be included is implied rather than specifically stated. The
5 proposal would delineate those particular actions that
6 should be specifically described in any maintenance record
7 entry. These would include, but not be limited to:
8 (1) compliance with an AD; (2) the performance of a major
9 repair, to include reference to data used to complete the
10 major repair; (3) the performance of a major alteration, to
11 include reference to data used to complete the major
12 alteration; (4) the performance of an overhaul; (5) the
13 replacement of a life-limited part; (6) the accomplishment
14 of a task in a maintenance program; (7) the performance of
15 any actions specified in the Airworthiness Limitations
16 section of a manufacturer's maintenance manual or
17 Instructions for Continued Airworthiness.

18 Only the accomplishment of an AD would require the
19 individual making the maintenance record entry to include
20 specific information in the description of work performed
21 (e.g., specific AD number; revision number, revision date,
22 or amendment number; and method of compliance).

23 Although the inclusion of a service bulletin's or
24 owner-operator directed maintenance order's number is
25 encouraged in a maintenance record entry (and may be the
26 easiest means of providing a succinct description of the

1 work performed), it would not be required to be included in
2 a maintenance record entry, provided that an adequate
3 description of the work performed is included.

4 The FAA also proposes that the description of work
5 performed in a maintenance record entry include the
6 time-in-service of any life-limited part that has been
7 installed. It would not be required as a maintenance record
8 entry for work performed on other items. Time-in-service
9 with respect to maintenance time records is defined in § 1.1
10 as "the time from the moment an aircraft leaves the surface
11 of the earth until it touches it at the next point of
12 landing" and may be measured in hours, cycles, or any other
13 applicable standard.

14 Current 14 CFR §§ 91.417, 121.380, and 135.439 require
15 all operators to retain records containing information
16 specifying the total time-in-service of the airframe (and
17 each engine, propeller, and rotor for part 91 and 135
18 operators and each engine and propeller, subject to certain
19 limitations for part 121). These regulations also require
20 the retention of records specifying the current status of
21 life-limited parts. Although time-in-service is not
22 currently required as a maintenance record entry, a
23 requirement to include it as a maintenance record entry for
24 life-limited parts would facilitate the compilation of the
25 data used to determine current status information for
26 life-limited parts. It would ensure that the data upon

1 which this current status information is based could be
2 collected.

3 The FAA also proposes to require that a maintenance
4 record entry include the specific work order number(s) for
5 any maintenance, preventive maintenance, rebuilding, or
6 alteration performed, if such numbers are used by owners,
7 operators, or maintenance personnel in performing work on an
8 item. This new requirement would facilitate the retrieval
9 of any additional information that pertains to work that has
10 been accomplished but that is not contained in a particular
11 maintenance record entry. Entries of work order numbers are
12 required on FAA Form 8130-3 and JAA Form One. Work order
13 numbers could be provided by the owner, operator, or repair
14 facility. All applicable work order numbers would be
15 required to be listed in the maintenance record entry. The
16 FAA recognizes that certain work, especially work done in
17 support of general aviation, may not be identified by a work
18 order number or numbers. The proposal would not require the
19 creation of such numbers; it would only require the
20 recording of such numbers if used by maintenance personnel.

21 The proposal would further assist maintenance
22 organizations or persons conducting subsequent maintenance
23 of an aircraft, airframe, aircraft engine, propeller,
24 appliance, component, or part by requiring that a part's
25 name, number, and serial number (if applicable) be recorded
26 in a maintenance record entry so that it correlates to the

1 manufacturer's part number and serial number. By requiring
2 the inclusion of this data, the rule would ensure that the
3 owner or operator is aware of the specific part that has
4 been used in any work performed. Operators frequently use
5 their own internal systems to identify interchangeable
6 parts. These parts may have been manufactured by any one of
7 a number of manufacturers. Consequently, these owners' or
8 operators' references to a part cannot always be correlated
9 to a specific part from a single manufacturer. Because the
10 method of performance of subsequent maintenance actions may
11 depend on the conclusive identification of a part previously
12 used, the ability to verify the origin of a part from a
13 specific manufacturer is essential. The proposal, however,
14 would not require the creation of part numbers or serial
15 numbers for unnumbered or unserialized parts.

16 The FAA recognizes that current § 43.9(b) requires
17 operators issued certificates under part 121 or part 135
18 that have approved Continuous Airworthiness Maintenance
19 Programs to make maintenance record entries in accordance
20 with the applicable provisions of the chapters under which
21 their operations are conducted. Although the manner in
22 which these records are retained may vary, the information
23 contained within these records should correspond to that
24 required by proposed § 43.9(a). The FAA contends that by
25 specifying the types of work that should be specifically
26 described in a maintenance record entry, it would establish

1 the foundation upon which a system of readily transferable
2 records could be based that would benefit the entire
3 aviation maintenance industry, as well as aircraft owners
4 and operators. The information that describes any work
5 performed, therefore, would be the same, regardless of the
6 operating rule under which the items were used. Use of
7 these standard maintenance record entry requirements would
8 ensure that records of work performed on any aircraft,
9 airframe, aircraft engine, propeller, appliance, component,
10 or part could be readily integrated into the maintenance
11 recordkeeping system of any owner, operator, or repair
12 station. A provision similar to current § 43.9(b) therefore
13 would not be contained in the proposed rule.

14 Although the proposed rule specifies the information to
15 be included in a maintenance record entry, maintenance
16 personnel would retain the flexibility to use a variety of
17 methods to create a maintenance record entry, such as an
18 entry in a logbook, an electronic record, FAA Form 337,
19 FAA Form 8130-3, or JAA Form One. The proposal would also
20 specifically permit an individual approving the work
21 performed to use other positive identification that complies
22 with the provisions of a certificate holder's manual to
23 indicate that an item has been approved for return to
24 service.

25 In seeking to develop a maintenance recordkeeping
26 system that better facilitates the transfer of items among

1 owners, operators, and maintenance facilities, the FAA,
2 through ARAC, has considered the recommendations of all
3 segments of the aviation industry involved in aircraft
4 production, maintenance, and operations. The FAA also has
5 reviewed methods of documenting airworthiness, such as
6 FAA Form 8130-3 "Airworthiness Approval Tag" and Joint
7 Aviation Authorities (JAA) Form One, to determine the types
8 of data that should constitute the proposed minimum
9 maintenance record entry requirements. The FAA's proposed
10 changes to the requirements for a maintenance record entry
11 would ensure that the maintenance record entries specified
12 on currently used forms be included in FAA recordkeeping
13 requirements. The proposal also would increase the level of
14 similarity between JAA and FAA maintenance record entry
15 requirements and place no unreasonable burden on owners,
16 operators, or maintenance personnel. The proposal would not
17 change current rules pertaining to the international
18 transfer of aircraft, airframes, aircraft engines,
19 propellers, appliances, components, and parts.

20 Although the FAA, in response to a petition for
21 rulemaking submitted by Mr. Grant W. Young on behalf of
22 Aviation Records Management Co., Inc. (Docket No. 26864,
23 59 FR 5554, Feb. 7, 1994), considered requiring part 121,
24 125, and 135 operators and third-party facilities to use
25 standardized forms when performing routine and nonroutine
26 maintenance at the C-check level and above, the FAA deemed

1 such a proposal to be overly burdensome to the aviation
2 maintenance industry. The proposal and the existing
3 regulations do not prohibit a maintenance facility from
4 developing a suitable format for recording maintenance
5 record entries that comply with § 43.9.

6 The establishment of a standardized set of data to be
7 created after the performance of maintenance, preventive
8 maintenance, rebuilding, or alterations would facilitate the
9 use of electronic maintenance recordkeeping systems to
10 retain and store the data created. Only one set of data
11 would be necessary to describe all maintenance actions
12 accomplished on an item, regardless of the operating rule
13 under which the item was or is being used. Such records
14 uniformity would greatly aid the industry in developing and
15 using electronic recordkeeping systems for the retention of
16 maintenance records. This proposal is not, however,
17 intended to preclude the use of paper-based recordkeeping
18 systems.

19 Transfer of Initial Certification Information From
20 Manufacturers

21

22 *Current Requirements*

23 The scope of the requirements for the transfer of
24 information concurrent with the delivery of an aircraft,
25 airframe, aircraft engine, propeller, appliance, component,
26 or part from a manufacturer is limited. Current

1 14 CFR § 21.5 states that each airplane or rotorcraft that
2 was not type certificated with an Airplane or Rotorcraft
3 Flight Manual and that has no flight time before
4 March 1, 1979, must be delivered with a current approved
5 Airplane or Rotorcraft Flight Manual. Although the flight
6 manual provides significant information pertaining to the
7 operating limitations, operating procedures, and performance
8 limitations of the aircraft, it provides little information
9 regarding an aircraft's current maintenance status.

10 The regulations do not explicitly require a
11 manufacturer to provide maintenance records or other
12 information that an operator would be required to retain
13 regarding the maintenance status of an aircraft engine or
14 propeller. Similarly, the regulations do not explicitly
15 require a manufacturer of an appliance, component, or
16 part to provide maintenance documentation. The lack of such
17 information hinders the ability of an owner or operator to
18 verify the airworthiness of items received from
19 manufacturers.

20 *Proposed Requirements*

21 As noted earlier, a major goal of this proposal is to
22 facilitate the development of a standardized maintenance
23 recordkeeping system that would enable owners and operators
24 to ensure that a standard set of maintenance records
25 accompanies an aircraft, airframe, aircraft engine,
26 propeller, appliance, component, or part throughout its

1 life. To achieve this goal, it is critical that owners and
2 operators have access to information that would establish
3 the initial maintenance status of these items.

4 This proposal would require any person who produces an
5 aircraft, airframe, aircraft engine, propeller, appliance,
6 component, or part pursuant to a certificate, approval, or
7 authorization provided by the Administrator to maintain the
8 minimum amount of information necessary to establish the
9 current maintenance status and airworthiness of the item. A
10 manufacturer would be required to provide this information
11 to the recipient of an item at the time of its delivery
12 commencing 1 year after the effective date of the rule.

13 The proposal would therefore help the recipient to
14 verify any maintenance actions that may have been taken
15 before delivery, which could affect the current status or
16 future airworthiness of the item. It would not require that
17 this information be provided for owner-produced parts or for
18 standard parts because those parts are not produced pursuant
19 to requirements contained in 14 CFR part 21.

20 The information required would include: the name,
21 number, and serial number of the aircraft, airframe,
22 aircraft engine, propeller, appliance, component, or part;
23 the weight and center of gravity for aircraft (and the
24 conditions under which these values were determined); the
25 current status of applicable AD's (to include AD's that have
26 been accomplished during the production process, but not

1 AD's that have been completely included as a result of an
2 approved design change); the part number and serial number
3 of any life-limited part and the part's total
4 time-in-service and life limit; a description of any
5 alterations or modifications accomplished in accordance with
6 a Supplemental Type Certificate; the airworthiness
7 certificate, if applicable; and evidence indicating that the
8 item was produced pursuant to a certificate, approval, or
9 authorization provided by the Administrator.

10 The proposed rule introduces the concept of "evidence"
11 of production pursuant to a certificate, approval, or
12 authorization. The FAA recognizes that there are varying
13 types of evidence of production pursuant to a certificate,
14 approval, or authorization. Such evidence can be in the
15 form of documentation, a packing list, invoice, or material
16 certification. Evidence also can consist of part markings.

17 Examples of evidence sufficient to indicate production
18 pursuant to a certificate, approval, or authorization could
19 consist of a type certificate number, or a Parts
20 Manufacturer Approval (PMA) or Technical Standard Order
21 (TSO) number. Products manufactured according to a TSO, for
22 example, require that the TSO number be marked on the
23 product's data plate and parts manufactured pursuant to a
24 PMA are required to be marked "FAA-PMA." Any purchase
25 records used to demonstrate compliance with the proposed
26 requirement must indicate the specific certification,

1 approval, or authorization basis used for the production of
2 the item or refer to documentation on which the specific
3 certification, approval, or authorization basis for the
4 production of the item can be found. Sufficient
5 documentation, however, need not consist of the original
6 certificate, authorization, or approval issued to the
7 manufacturer but may include a copy of such documentation.
8 For items delivered in lots, a single document may be used
9 to determine the status of each item contained within the
10 lot. If an item was removed from the lot and evidence of
11 its status was required, documentation indicating that the
12 removed item had been part of the lot and the certification,
13 approval, or authorization status of the lot would provide
14 sufficient evidence of the individual item's status.
15 Additional documentation may not be needed if the markings
16 on an item provide the required information; e.g., for TSO
17 products.

18 Since the proposed rule also requires verification of
19 this evidence at each transfer by a certificated entity,
20 acceptable evidence may consist of a certification that the
21 product's production status was reviewed during a required
22 receiving inspection. Acceptable evidence also could
23 consist of the results of a conformity inspection conducted
24 to determine if the item meets all requirements for its
25 production. Evidence of production pursuant to a
26 certificate, approval, or authorization would not be

1 required to be in the form of paper documentation. The FAA
2 contends that the provision of this information by
3 manufacturers will greatly assist an owner or operator in
4 determining the modification status of any item that is
5 delivered.

6 The proposal would not require that this information be
7 provided for parts produced by an owner or operator for
8 maintaining the owner's or operator's own product. Such
9 parts are frequently produced under part 43 during the
10 accomplishment of a major repair. The documentation
11 associated with the manufacture of these parts is required
12 to be retained under proposed § 91.417 and transferred under
13 proposed § 91.419. The proposal also would not require
14 manufacturers to provide this information for standard parts
15 produced in accordance with industry or U.S. specifications.
16 These parts are not produced in accordance with a formal
17 FAA approval process.

18 The recipient subject to the proposed recordkeeping
19 requirements would not be required to retain the original
20 certification and maintenance records provided by the
21 manufacturer. The recipient could integrate the information
22 contained within these records into its own recordkeeping
23 system and not retain the original certification and
24 maintenance records, yet still satisfy all applicable
25 regulatory requirements.

1 Retention of these records by persons not subject to
2 the proposed maintenance recordkeeping requirements is
3 encouraged to facilitate the subsequent transfer of aviation
4 products to persons subject to these requirements. The FAA
5 contends that although suppliers and distributors would not
6 be subject to these proposed requirements, virtually all
7 suppliers and distributors would retain these records
8 because the information contained in the records would be
9 required by their customers to meet the proposed
10 requirements.

11 The receiving owner, operator, or repair station would
12 use this information as the basis for integrating an
13 aircraft, airframe, aircraft engine, propeller, appliance,
14 component, or part into its own maintenance recordkeeping
15 system. In so doing, the recipient would be ensured of
16 possessing the information necessary to ensure initial
17 compliance with the record retention requirements of
18 proposed § 91.417. These records would be continually
19 updated as work is performed on the item.

20 The original information provided by a manufacturer
21 under proposed 14 CFR § 21.7 could be transferred by the
22 manufacturer in paper, electronic, microfilm, or another
23 equivalent format. The information would be required to be
24 retained by the aircraft's owner or operator only if
25 required to comply with the requirements of proposed
26 § 91.417, and would not be required to be retained when no

1 longer required to document the status of an item
2 (i.e., when the information has been transferred with the
3 item from one certificate holder to another certificate
4 holder or when the information has been transferred to an
5 electronic recordkeeping system that meets the requirements
6 of proposed § 91.423 or § 145.65). Although the proposal
7 would address only manufacturers and, therefore, would place
8 no requirement on suppliers and distributors to transfer or
9 retain such data, the proposal would require certificate
10 holders and operators to obtain this information under
11 proposed §§ 91.420(a) and 145.69(a). The requirements
12 placed on certificate holders and operators to obtain such
13 data should therefore result in the provision of this
14 information by suppliers and distributors.

15 Manufacturers would be required to maintain this
16 information and to provide it to all recipients for each
17 aircraft, airframe, aircraft engine, propeller, appliance,
18 component, and part produced after [1 year after the
19 effective date of the rule]. A manufacturer would not be
20 required to provide this information for items produced and
21 transferred prior to [1 year after the effective date of the
22 rule], however the proposed requirement would apply to items
23 produced prior to [1 year after the effective date of the
24 rule], (i.e., inventory items) that are transferred after
25 that time.

1 Additionally, a manufacturer would not be required to
2 provide the name, number, and serial number of all
3 subcomponents or parts that comprise an item that is being
4 delivered. This information would already have been
5 provided to the manufacturer of the larger item during the
6 production process. The manufacturer may choose to provide
7 this information, but it would not be required by the
8 proposed rule. This subcomponent/parts listing would only
9 be required for any item on which certain maintenance
10 actions had been performed prior to delivery (AD's, or any
11 alterations or modifications accomplished in accordance with
12 an STC) to identify the item on which work was performed and
13 to identify life-limited parts. Current status information
14 for AD's, however, would be required to be provided not only
15 for the item delivered but also for any item that forms a
16 portion of the larger item delivered, as such AD's would be
17 considered "applicable" to the item delivered.

18 Initial certification records would be required to be
19 provided to noncertificated aviation parts distributors and
20 suppliers, as well as to owners and operators of aircraft.
21 The proposed rule would only establish this requirement for
22 manufacturers producing items pursuant to an FAA
23 certificate, approval, or authorization. While the proposal
24 would not require parts distributors and suppliers to
25 provide this information to their customers, it does require
26 an operator to receive this information in accordance with

1 proposed § 91.420 and a repair station to receive this
2 information in accordance with § 145.69. The proposal would
3 not require producers of standard parts, or owners or
4 operators who produce parts for use on their own aircraft,
5 to provide this information. Aircraft owners, operators,
6 and repair stations would continue to be required to ensure
7 the airworthiness of any standard part, or part produced by
8 an owner or operator, installed on a type-certificated
9 product, even though initial certification records would not
10 be required from the manufacturer of any of these products.
11 A standard part's conformity to industry or U.S. standards
12 and applicable marking requirements, or certification that a
13 part was produced by an owner or operator, should provide
14 evidence of such compliance.

15 Although the FAA does not propose to regulate
16 noncertificated distributors and suppliers, these entities
17 would be encouraged to provide the records specified in
18 proposed § 21.7 to all aircraft owners, operators, and
19 repair stations with whom they conduct business. These
20 noncertificated entities and suppliers should note that the
21 requirements for aircraft owners, operators, and repair
22 stations in proposed §§ 91.420 and 145.69 would result in
23 requests for this information. An owner, operator, or
24 repair station that chooses to accept an item from a
25 noncertificated entity without certification information

1 would be required to complete a full conformity inspection
2 of the item upon receipt.

3 Under proposed §§ 91.420 and 145.69, aircraft owners,
4 operators, and repair stations would be required to obtain
5 the records specified in proposed § 21.7, upon the receipt
6 of an item from its manufacturer. However, if the owner,
7 operator, or repair station receives an item from a person
8 other than its manufacturer, it must obtain either the
9 records specified in proposed § 21.7, or the information
10 contained in those certification records in a form that
11 meets the requirements of proposed § 91.417, at the time of
12 transfer. If a transferor other than a manufacturer can
13 provide the information contained in the records specified
14 in proposed § 21.7, to the receiving owner, operator, or
15 repair station in the form of records that meet the
16 provisions of proposed § 91.417(a), (b), (c), (d), and (g),
17 the recipient would not need to obtain the records specified
18 in proposed § 21.7.

19 Aircraft owners, operators, and repair stations,
20 therefore, would be ensured of obtaining the information
21 contained in the records noted in proposed § 21.7, either in
22 the form of original certification records or their
23 equivalent (e.g., copies of the original records or the
24 information contained in those records). Aircraft owners,
25 operators, and repair stations that obtain aircraft parts
26 from distributors, for example, would be required to obtain

1 either the records specified in proposed § 21.7, or records
2 containing this information, that meet the applicable
3 portions of proposed § 91.417.

4 If the item was received from a person required to
5 conduct a receiving inspection of the item's records as
6 specified under proposed 14 CFR §§ 121.369(b)(10),
7 125.249(a)(3)(viii), 129.14(a)(2), and 135.427(b)(10), or
8 the applicable provisions of part 145, or the item was
9 previously owned, operated, or maintained by a person
10 required to conduct such an inspection, the FAA would not
11 consider the specific certificate, approval, or
12 authorization provided by the Administrator to be the sole
13 means of meeting the requirement of proposed § 21.7(a)(7).
14 The FAA also would consider evidence indicating that the
15 item was properly inspected and accepted by a person
16 required by regulation to conduct a receiving inspection, or
17 evidence indicating that the item was removed from a
18 higher-level assembly, produced pursuant to a certificate,
19 approval, or authorization provided by the Administrator as
20 being sufficient to conclusively indicate that the item
21 itself was produced pursuant to a certificate, approval, or
22 authorization provided by the Administrator.

23 Although the FAA is not proposing the creation of a
24 mandatory removal record, such documentation
25 (e.g., FAA Form 8130-3) would assist in identifying
26 airworthy parts that are not subject to PMA or TSO marking

1 requirements, facilitate the transfer of parts for
2 subsequent maintenance or "cannibalization," and serve as an
3 acceptable method of meeting the requirements of proposed
4 § 91.417(a)(12) in any subsequent transfer of the item. If
5 the owner, operator, or repair station does not have a
6 record indicating that an item was produced pursuant to some
7 form of certificate, approval, or authorization, the item
8 would be required to be inspected for conformity with design
9 requirements prior to its installation on a certificated
10 aircraft.

11 Although the FAA considered imposing a specific
12 requirement on owners, operators, and repair stations to
13 provide original certification, approval, or authorization
14 documentation to indicate an item's status with all
15 transfers, the FAA determined that such a requirement would
16 be overly burdensome. The original certification
17 information only would be required with the initial transfer
18 of an item from its manufacturer or when no other evidence
19 could be provided that the item had previously been produced
20 or maintained in accordance with regulatory requirements.
21 In many transfers, an item already will have been inspected
22 to determine its status. Additionally the item's
23 accompanying maintenance records will have been reviewed for
24 compliance with proposed regulatory requirements. Repeated
25 inspections of an item's original certification, approval,
26 or authorization documents would not be considered

1 necessary, provided that a subsequent owner, operator, or
2 repair station could determine that a receiving inspection,
3 mandated by regulation, had been accomplished and that the
4 item had indeed been accepted by the operator that conducted
5 the inspection, or that the item had been removed from a
6 higher-level component whose status could be documented.

7 Both the FAA and the aviation maintenance industry are
8 firmly committed to ensuring that unapproved parts do not
9 enter the aviation maintenance system. The FAA recognizes
10 the difficulty that manufacturers, owners, operators, and
11 repair stations have in determining an item's status,
12 especially for those items that have been removed for
13 repair, reinstallation, exchange, or transfer. This concern
14 was noted in the October 6, 1995, report of the FAA's
15 Suspected Unapproved Parts Task Force, which specifically
16 cited industry-wide problems in ensuring that parts conform
17 to type design and are in a condition for safe operation
18 prior to installation on an aircraft. The report also noted
19 the aviation maintenance industry's difficulties in
20 maintaining a record of a part's approval status after its
21 removal from an aircraft.

22 The FAA contends that this proposal would provide the
23 recipients of aircraft, airframes, aircraft engines,
24 propellers, appliances, components, and parts with
25 sufficient documentation or equivalent evidence to ensure
26 that the items they receive have been manufactured in

1 accordance with proper certification, approval, or
2 authorization procedures, thereby decreasing the presence of
3 unapproved parts within the aviation community. The
4 proposal would establish an initial "filter," which would
5 ensure that upon the first entry of an item into the
6 aviation maintenance industry, there would be sufficient
7 indication of its proper status. The specific
8 certification, authorization, or approval would be initially
9 provided by the manufacturer and would accompany the item as
10 an indication of its status until the item had been
11 inspected and accepted by a certificate holder required to
12 possess an inspection program under proposed
13 §§ 121.369(b)(10), 125.249(a)(3)(viii), 129.14(a)(2),
14 135.427(b)(10), or part 145. After the item had been
15 subjected to such an inspection and accepted by the
16 operator, evidence of compliance with the inspection or
17 evidence indicating that the item had been removed from a
18 higher-level component whose proper status could be
19 documented would constitute sufficient documentation. Such
20 evidence would provide sufficient information upon which to
21 formulate those maintenance records required by proposed
22 § 91.417. If an item was not subjected to an inspection
23 program, such as upon transfer to a person conducting
24 operations under part 91, the original certification records
25 should accompany the item.

1 Expansion of the Scope of Maintenance Records Retained for
2 an Aircraft, Airframe, Aircraft Engine, Propeller,
3 Appliance, Component, or Part

4
5 *Current Requirements*
6

7 Maintenance record retention requirements are specified
8 in §§ 91.417, 121.380, 135.439, and 145.61. Part 125
9 operators and foreign operators of U.S.-registered aircraft
10 under part 129 are subject to the record retention
11 requirements of § 91.417.

12 The maintenance record retention requirements of
13 § 121.380 require that each certificate holder retain the
14 following specific information: (1) the total
15 time-in-service of an airframe; (2) the total
16 time-in-service for each engine and propeller (subject to
17 certain limitations as specified in § 121.380(b); (3) the
18 current status of life-limited parts of each airframe,
19 engine, propeller, and appliance; (4) the time since the
20 last overhaul of items that are required to be overhauled on
21 a specific time basis; (5) the current inspection status of
22 the aircraft; (6) the current status of applicable AD's,
23 including the date and method of compliance and if the AD
24 involves recurring action, the time and date when the next
25 action is required; and (7) a list of current major
26 alterations to each airframe, engine, propeller, and

1 appliance. These records must be retained and transferred
2 with the aircraft at the time the aircraft is sold.

3 Current § 121.380 also requires a certificate holder to
4 retain all the records necessary to show that all the
5 requirements for the issuance of an airworthiness release
6 have been met for 1 year after the work is performed or
7 until the work is repeated or superseded by other work.
8 However, the records of the last complete overhaul of each
9 airframe, engine, propeller, and appliance are required to
10 be retained until the work is superseded by work of
11 equivalent scope and detail.

12 The maintenance record retention requirements of
13 § 135.439 are virtually identical to those of § 121.380,
14 with only a minor difference relating to total
15 time-in-service records. In § 135.439, total
16 time-in-service records are required for airframes, engines,
17 propellers, and rotors; § 121.380 requires these records for
18 airframes, and in limited cases, for engines and propellers.

19 Maintenance record retention and transfer requirements
20 for owners and operators under parts 91 and 125, and foreign
21 operators of U.S.-registered aircraft under part 129 are
22 found in § 91.417. The § 91.417 record retention
23 requirements that pertain to total time-in-service, current
24 status of life-limited parts, time since overhaul, current
25 inspection status, and current status of applicable AD's are
26 identical to the requirements of § 135.439.

1 Current § 91.417 requires that forms prescribed by
2 § 43.9(a) be retained only for major alterations to the
3 airframe and currently installed engines, rotors, propellers
4 and appliances, whereas § 135.439 requires that a list of
5 major alterations and major repairs to each airframe,
6 engine, propeller, rotor, and appliance be retained.
7 Current § 121.380 only requires that a list of major
8 alterations to each airframe, engine, propeller, and
9 appliance be retained. Current §§ 121.380 and 135.439 do
10 not refer to the forms specified in current § 43.9(a).

11 Current § 91.417 also differs from current §§ 121.380
12 and 135.439 in that it does not refer to an airworthiness
13 release, which is not required for part 91 operations.
14 However, for each aircraft, airframe, engine, propeller,
15 rotor, and appliance, current § 91.417 does require that
16 each owner or operator retain records of maintenance,
17 preventive maintenance, or alteration, as well as records of
18 100-hour, annual, progressive, and other required or
19 approved inspections until the work is repeated or
20 superseded by other work or for 1 year after the work is
21 performed. These records must include: (1) a description
22 (or reference to acceptable data) of the work performed;
23 (2) the date of completion of the work performed; and
24 (3) the signature and certificate number of the person
25 approving the aircraft for return to service.

1 As a result of the development of maintenance record
2 retention requirements over an extended period of time,
3 parts 91, 121, and 135 set forth slightly different minimum
4 regulatory requirements for owners and operators.

5 *Proposed Requirements*

6 The FAA proposes to standardize minimum record content
7 and retention requirements by consolidating all current
8 requirements for owners and operators into proposed
9 § 91.417. The record retention requirements found in
10 current §§ 121.380 and 135.439 would be deleted. Owners,
11 operators, and repair stations, however, would not be
12 required to modify or create any additional records to
13 document work accomplished prior to the effective date of
14 the rule.

15 The provisions contained in § 91.417 now would apply to
16 all operators. This change would ensure the availability of
17 standardized records for aircraft that are transferred
18 between persons conducting operations under different
19 operating regulations. In addition, it would eliminate
20 problems encountered in documenting previous aircraft
21 maintenance when an aircraft (or other item) operated under
22 the maintenance record retention provisions of one part of
23 the regulations is transferred to an owner or operator
24 operating pursuant to another part of the regulations that
25 has different maintenance record retention requirements.

1 The proposed rule also would specify that current
2 status information for overhauls, inspections, and
3 AD compliance would pertain to all airframes, aircraft
4 engines, propellers, appliances, components, and parts.
5 Current status information for AD's would include those
6 applicable AD's accomplished during manufacture. Including
7 current status information for these items would ensure
8 consistency between the maintenance record entry
9 requirements in proposed § 43.9 and the record retention
10 requirements proposed for all owners and operators..

11 Records for each major repair also would have to be
12 retained and transferred, as would documentation of the
13 status of any item produced pursuant to any certificate,
14 authorization, or approval provided by the Administrator.
15 These requirements are discussed separately in the proposal.
16 Current requirements for the retention of major alteration
17 records would be consolidated in proposed § 91.417.

18 Records of the maintenance, preventive maintenance,
19 rebuilding, or alteration of an aircraft, airframe, aircraft
20 engine, propeller, appliance, component, or part, and
21 records pertaining to the completion of 100-hour, annual,
22 progressive, or other required or approved inspections would
23 continue to be required to be retained for 1 year or until
24 the work is superseded, whichever occurs sooner. The FAA
25 recognizes that many owners and operators retain these
26 records for longer periods of time, however, the proposal

1 would continue to permit the disposal of these records after
2 1 year, when superseded, or also when repeated.

3 Additionally, the FAA would permit these records to be
4 retained in accordance with a certificate holder's manual.

5 The proposed changes to § 91.417 also would permit
6 certificate holders operating under part 121 to retain the
7 last complete overhaul records of an item for 1 year, until
8 the work is superseded, or in accordance with its manual.

9 The current rule requires that these operators retain
10 records of the last complete overhaul of each airframe,
11 engine, propeller, rotor, and appliance until the work is
12 superseded by work of equivalent scope and detail.

13 With the emergence of modular maintenance, the FAA
14 contends that many maintenance tasks previously accomplished
15 through complete overhauls are now accomplished through a
16 series of modular repairs. The FAA has perceived no need to
17 differentiate the retention requirements for overhaul
18 records from those of other maintenance actions and,
19 therefore, proposes that these records be retained for
20 1 year, until repeated or superseded, or in accordance with
21 a certificate holder's manual.

22 The FAA also proposes contends that owners and
23 operators with maintenance programs should retain records of
24 scheduled inspection program tasks until the underlying work
25 is repeated or superseded. The FAA asserts that records of
26 this work continue to retain their value in determining an

1 item's airworthiness even after a period of 1 year if the
2 work has not been repeated or superseded. Such information
3 may be of critical importance in the conduct of any
4 investigation and may provide the most recent and relevant
5 information regarding the nature of the work performed.

6 The proposed rule would not require that records of
7 work performed in those portions of progressive inspections
8 that have been repeated or superseded be retained, even
9 though the entire progressive inspection has not been
10 completed. Many tasks completed during a progressive
11 inspection are identical and repeated over the course of
12 that progressive inspection. The FAA contends that the
13 retention of records documenting the earlier accomplishment
14 of an identical task imposes an unwarranted burden on the
15 operator and that only the records of the last
16 accomplishment of a specific task should be required.
17 Additionally, the proposal would require records of
18 nonroutine tasks that are not part of an inspection, yet
19 which are accomplished as part of a required inspection, to
20 be retained for 1 year, until repeated or superseded, or in
21 accordance with a certificate holder's manual. To retain
22 congruency with current international practices and to
23 ensure the adequate regulation of maintenance practices at
24 FAA-certificated repair stations, the current requirement
25 for repair stations to retain records of work accomplished
26 for 2 years after the performance of the work would remain

1 unchanged in the proposal. Owners or operators that engage
2 in the practice of permitting repair stations to retain
3 custody of their maintenance records should note that the
4 current requirement for repair stations to retain records of
5 work accomplished for 2 years does not relieve the owner or
6 operator of other applicable regulatory requirements to
7 retain records of work that has been accomplished.

8 The FAA also proposes to integrate weight and balance
9 information for aircraft into the standardized maintenance
10 recordkeeping system proposed in this NPRM. This
11 information is crucial to the safety of flight because it is
12 a prerequisite to the development of current, accurate
13 operating limitations for an aircraft. The possession of
14 accurate weight and balance information by an owner or
15 operator also is necessary to comply with current § 43.5(c),
16 which requires that operating limitations or flight data
17 contained in the aircraft flight manual be revised if a
18 repair or alteration changes any of the parameters. This
19 proposal would immediately provide the owner or operator
20 with an aircraft's weight and balance (and its resulting
21 operating limitations) after a transfer and, therefore, help
22 owners and operators ensure that their aircraft are operated
23 within specific weight and balance limitations and other
24 limitations derived from this information.

25 During the development of this proposal, the FAA
26 considered standardizing the current maintenance record

1 retention and transfer requirements found in parts 91, 121,
2 125, and 135 without deleting the sections in these
3 individual parts pertaining to maintenance recordkeeping and
4 without consolidating the proposed requirements within
5 part 91. The FAA contends that the proposed standardized
6 maintenance record retention and transfer requirements
7 constitute the minimum maintenance recordkeeping
8 requirements necessary to ascertain the airworthiness of all
9 aircraft, airframes, aircraft engines, propellers,
10 appliances, components, and parts. As such, these
11 requirements should be included within part 91, which sets
12 forth all basic minimum requirements for all owners and
13 operators, to include those operating under parts 121, 125,
14 129, and 135. The FAA emphasizes, however, that compliance
15 with these minimum maintenance recordkeeping requirements,
16 in and of itself, does not ensure the airworthiness of
17 an item.

18 As the FAA recognizes that maintenance records may be
19 retained in a variety of possible formats, the proposal
20 would require an owner or operator to provide the FAA or
21 NTSB with a copy of any maintenance record required to be
22 retained by this proposal in a suitable format. During the
23 conduct of an investigation, FAA and NTSB investigators must
24 frequently review a wide variety of maintenance records over
25 an extended period of time. Although the Administrator may
26 find the use of electronic and other methods of maintenance

1 recordkeeping acceptable, the records retained by an owner
2 or operator may not be in a format compatible with FAA
3 systems. Because records reviews may be conducted away from
4 the owner's, operator's, or repair station's records storage
5 area, the ability to remove such records to facilitate the
6 review of their contents by a variety of investigative
7 personnel is essential to the expeditious conduct of any
8 investigation. The FAA, therefore, proposes in § 91.417(f)
9 that any maintenance record required to be maintained by an
10 owner or operator, be provided in English, either in paper
11 or other media acceptable to the FAA or NTSB, upon request.

12 The FAA is neither encouraging or discouraging the use
13 of paper records to satisfy the proposed requirement. If
14 electronic records retained by an operator are not in a
15 format compatible with FAA systems, an owner or operator
16 may, for example, satisfy the proposed requirement by
17 providing the FAA with electronic records in disk format
18 together with whatever computer hardware or software would
19 be necessary to create a paper copy of the desired records.
20 If the records were maintained in a format compatible with
21 FAA or NTSB systems, only an electronic copy of the records
22 would be required to be provided to the FAA or NTSB. The
23 use of paper records would not be the only means necessary
24 to satisfy proposed record retention requirements or any
25 proposed requirements for FAA or NTSB review of records.

1 The FAA additionally considered requiring owners and
2 operators to retain and transfer the current status of
3 accomplished manufacturers' service bulletins and owner- or
4 operator-directed maintenance orders. Service bulletins and
5 owner- or operator-directed maintenance orders frequently
6 involve detailed work that may, be the subject of a future
7 AD or may affect subsequent maintenance of an aircraft,
8 airframe, aircraft engine, propeller, appliance, component,
9 or part. Such information could give a subsequent owner or
10 operator of an item a readily available source to determine
11 whether the work required by a future AD may have been
12 accomplished through the completion of a service bulletin or
13 owner- or operator-directed maintenance order. If a new
14 owner or operator were aware that a service bulletin (or
15 owner- or operator-directed maintenance order that
16 incorporates a service bulletin) recognized by the FAA as a
17 permissible way to comply with an AD has already been
18 performed on an item, the new owner or operator may not be
19 required to repeat the maintenance actions specified in the
20 AD. Current status information also would provide the owner
21 or operator with information that also may affect the future
22 maintenance, preventive maintenance, rebuilding, or
23 alteration of an item.

24 Even though information pertaining to the
25 accomplishment of service bulletins and owner- or
26 operator-directed maintenance orders may be found in an

1 item's maintenance records, the owner or operator of the
2 item is presently not required to retain or transfer any
3 records that would provide the current status of these
4 maintenance actions.

5 Additionally, the accomplishment of some service
6 bulletins and owner- or operator-directed maintenance orders
7 is not mandatory; however, if the work specified in a
8 service bulletin or owner- or operator-directed maintenance
9 order were accomplished, a record of that accomplishment
10 would be created in accordance with both current and
11 proposed § 43.9. Although information pertaining to the
12 accomplishment of these actions may facilitate future
13 maintenance actions, much of this information would be made
14 available to a subsequent owner or operator through the
15 records required to be retained and transferred pursuant to
16 proposed §§ 91.417 and 91.419.

17 In reviewing proposals to specifically retain and
18 transfer this current status information, the FAA noted a
19 number of difficulties that the implementation of such a
20 proposal would cause for owners and operators. Aviation
21 maintenance personnel frequently accomplish maintenance
22 tasks that may constitute the accomplishment of a service
23 bulletin; however, the accomplishment of such tasks may be
24 embodied in a work order or owner- or operator-directed
25 maintenance order that does not specifically reference the
26 service bulletin accomplished. Some maintenance orders may

1 modify service bulletins in recognition of the maintenance
2 practices used by an operator. Many older service bulletins
3 also have been incorporated into current maintenance
4 publications. Maintenance personnel may therefore often
5 perform work that accomplishes a service bulletin without
6 being immediately aware that the work performed correlates
7 to a specific numbered service bulletin.

8 Requiring aviation maintenance personnel to correlate
9 all work performed with the provisions of specific numbered
10 service bulletins in order to complete a maintenance record
11 entry and develop a current status listing of accomplished
12 service bulletins for all aircraft, aircraft engines,
13 propellers, appliances, components, and parts would often
14 entail significant and unnecessary records reviews that
15 would prove to be costly and overly burdensome.
16 Additionally, the intent of a service bulletin may be met
17 through actions that may differ from the specific actions
18 called for in a service bulletin. Owners or operators also
19 may decide to only accomplish a portion of a service
20 bulletin. Such actions would not be referenced in any
21 current status listing of accomplished manufacturers'
22 service bulletins.

23 After analyzing the costs and benefits of requiring
24 owners and operators to retain and transfer the current
25 status of accomplished manufacturer's service bulletins, the
26 FAA determined that the costs of requiring owners and

1 operators to retain and transfer this information for all
2 items would far outweigh any purported safety benefits due
3 to the inherent difficulties in compiling a complete list of
4 all accomplished service bulletins. As the intent of
5 requiring owners and operators to retain and transfer the
6 current status of owner- or operator-directed maintenance
7 orders would primarily be to obtain information regarding
8 specific service bulletin accomplishments, the FAA has not
9 proposed that owners and operators retain and transfer the
10 current status of owner- or operator-directed maintenance
11 orders.

12 The method of accomplishing all service bulletins and
13 owner- or operator-directed maintenance orders, however,
14 would continue to be recorded as a description of work
15 performed in a maintenance record entry made pursuant to
16 § 43.9, but the proposal would not specifically require that
17 any description of work performed include a contemporaneous
18 recording of the service bulletin number, maintenance order
19 number, and revision number (if applicable) corresponding to
20 the actual work performed, nor would it require a record to
21 be maintained of the current status of accomplished service
22 bulletins or owner- or operator-directed maintenance orders.
23 Service bulletins that affect safety would be mandated by an
24 AD and, therefore, would be subject to the recordkeeping
25 requirements that pertain to AD's. The recording of this
26 information would result in the retention of information

1 relating to the performance of work that affects
2 airworthiness, which frequently also has been directed by
3 service bulletins. Manufacturers also publish service
4 bulletins, or operators may issue work orders for economic
5 reasons, which may not directly affect the airworthiness of
6 an aircraft or other item. The FAA also considered
7 requiring that only those accomplished manufacturers'
8 service bulletins and owner- or operator-directed
9 maintenance orders that effect airworthiness be retained and
10 transferred. Because of the difficulty of implementing such
11 a proposal, the FAA has not proposed that owners and
12 operators retain and transfer the current status of all
13 manufacturers' service bulletins or owner- or
14 operator-directed maintenance orders that affect
15 airworthiness.

16 Expansion of the Scope of Maintenance Record Transfer
17 Requirements

18
19 In today's aviation environment, aircraft, airframes,
20 aircraft engines, propellers, appliances, components, and
21 parts are frequently transferred among persons operating
22 pursuant to different operating requirements. Because
23 various maintenance recordkeeping systems with their own
24 specific maintenance record entry and record retention
25 requirements exist, the minimum information necessary to
26 determine the airworthiness of an item in some cases may not

1 have been available to the operator, the subsequent
2 transferee, or a repair facility tasked with performing work
3 on the item. This inconsistency frequently requires
4 extensive records research to verify that required
5 maintenance has been accomplished. Problems in maintenance
6 record transfers are especially acute in instances where
7 leasing companies, whose aircraft may be operated under the
8 maintenance recordkeeping requirements of one section of the
9 regulations, either lease or receive an item from an owner
10 or operator conducting maintenance tasks pursuant to another
11 section of the regulations.

12 Additionally, when the necessary record verification
13 cannot be located, previously accomplished maintenance may
14 need to be repeated. In other instances, new work that is
15 to be performed may be adversely affected by previously
16 accomplished, yet unrecorded, work.

17 Maintenance recordkeeping systems give owners and
18 operators a means to demonstrate the airworthiness of an
19 aircraft, airframe, aircraft engine, propeller, appliance,
20 component, or part, and to transfer such items from one
21 owner or operator to another. The FAA contends that by
22 requiring all owners, operators, and repair stations to
23 comply with a standardized system of maintenance record
24 entry and record transfer procedures, the transfer of
25 aircraft, airframes, aircraft engines, propellers,
26 appliances, components, and parts, with sufficient

1 information to document the airworthiness of these items,
2 would be better guaranteed.

3 The proposal would consolidate the requirements for the
4 transfer of maintenance records for all owners and operators
5 into proposed § 91.419 and for repair stations into proposed
6 § 145.67. This proposal would encompass the current
7 requirement to transfer required maintenance records at the
8 time a U.S.-registered aircraft is sold and would expand the
9 applicability of the current rule to require the transfer of
10 all maintenance records that are required to be retained
11 under the provisions of proposed § 91.417 whenever any
12 aircraft, airframe, aircraft engine, propeller, appliance,
13 component, or part is transferred for a purpose other than
14 having work performed. The proposal, however, would limit
15 this requirement to items that are approved for return to
16 service.

17 By proposing that this requirement apply to items that
18 are approved for return to service, the FAA would not only
19 expand the number of instances in which records would be
20 required to be transferred but also would provide an owner
21 or operator with a means to adequately dispose of items not
22 approved for return to service which it may, for economic or
23 other reasons, desire to transfer to a person not subject to
24 the requirements of this part without the maintenance
25 records specified in proposed § 91.417. Such transfers

1 frequently occur when an owner or operator intends to
2 dispose of an item for its scrap or residual value.

3 Because the current maintenance record retention and
4 transfer requirements for aircraft, airframes, aircraft
5 engines, propellers, appliances, components, and parts are
6 governed by the operating rules under which the items are
7 used, transfers of these items would be greatly simplified
8 by adopting the standardized maintenance record retention
9 and transfer requirements proposed for all owners,
10 operators, and repair stations. The standardization of the
11 information transferred through the consolidation of
12 maintenance record retention and transfer requirements in
13 part 91, for owners and operators, and part 145, for repair
14 stations, should decrease the time and expense incurred in
15 ensuring that transferred maintenance records comply with
16 all provisions of the part under which an aircraft or other
17 item is currently being operated. The transferal of this
18 standardized information should greatly assist owners and
19 operators in controlling scheduled and unscheduled
20 maintenance, evaluating the quality of maintenance sources
21 and maintenance programs, and eliminating reinspections of
22 items to establish airworthiness. It also should decrease
23 the time and expense incurred in records research when an
24 aircraft or other item is transferred to a subsequent owner
25 or operator and should provide recipients of an item removed
26 from a serviceable aircraft with an adequate record to

1 document that item's maintenance status. Standardized
2 maintenance record retention and transfer requirements would
3 be the basis for an internally consistent maintenance
4 recordkeeping system that can be readily implemented by any
5 owner, operator, or repair station.

6 Additionally, by requiring owners, operators, and
7 repair stations to provide the proposed records with the
8 transfer of all aircraft, airframes, aircraft engines,
9 propellers, appliances, components, and parts (except for
10 items that are not approved for return to service, where
11 records would not be required to be transferred, and for the
12 purpose of performing work on the item, where only those
13 records necessary for the performance of the work would be
14 transferred), the FAA contends that recipients of these
15 items would be able to more rapidly and accurately assess
16 and confirm the airworthiness of the items transferred,
17 thereby improving safety. Possession of this information
18 would greatly facilitate the integration of each transferred
19 item into any maintenance program used by the recipient.

20 The information contained in those maintenance records
21 retained and transferred with an item approved for return to
22 service would constitute a "data frame set." The term "data
23 frame set" is a recognized term used in the aviation
24 maintenance industry to describe the content of maintenance
25 record entries and maintenance records described in proposed
26 §§ 43.9 and 91.417, respectively. This data frame set would

1 provide owners, operators, maintenance personnel, and
2 inspectors with the essential minimum information necessary
3 to assess the airworthiness of an item. The creation of
4 this information would be initiated through the transferal
5 of information from manufacturers when any manufacturer
6 delivers an item under the provisions of proposed § 21.7.
7 The information would be updated as maintenance record
8 entries are made pursuant to proposed § 43.9 and retained in
9 the records that would be required to be retained pursuant
10 to proposed § 91.417.

11 The FAA, as stated earlier, also proposes to expand the
12 definition of the term "transfer" to reflect current
13 industry practices. The maintenance records specified in
14 proposed § 91.417 would be required to be transferred at
15 every conveyance of an aircraft, airframe, aircraft engine,
16 propeller, appliance, component, or part among owners and
17 operators, rather than under the more limited circumstances
18 noted in the current rule.

19 An owner or operator would be permitted to transfer an
20 item that is not approved for return to service without the
21 maintenance records specified in proposed § 91.417. If the
22 owner or operator transfers an item that is not approved for
23 return to service, the owner would be required to provide a
24 statement to that effect that includes the basis for that
25 determination under the provisions of proposed § 91.419(b).

1 A similar provision would be established for repair stations
2 in proposed § 145.67(a)(2).

3 The FAA notes that virtually all transfers of an
4 aircraft, airframe, aircraft engine, propeller, appliance,
5 component, or part between owners and operators should
6 therefore include a transfer of the item's corresponding
7 maintenance records because each owner or operator would be
8 required to maintain these records for the item pursuant to
9 proposed § 91.417. An owner or operator who receives an
10 item, however, would still be permitted to allow the
11 preceding owner or operator to retain physical custody of
12 the records as set forth under proposed § 91.420(d). Such a
13 practice would be common in many rental, leasing, and parts
14 borrowing agreements. The receiving owner or operator would
15 continue to be responsible for the regulatory compliance of
16 the required records.

17 A more limited transfer requirement, discussed below,
18 would apply only when the product is transferred for the
19 purpose of having work performed, and the item will be
20 returned after completing the work. In this instance, an
21 operator would still have the option of permitting another
22 person, such as a repair station, to retain the required
23 maintenance records under proposed § 91.420(d).

24 The proposal would not introduce any new requirements
25 for distributors or suppliers that operate without any form
26 of production approval, as these persons are not required to

1 retain the maintenance records mandated by proposed
2 § 91.417. The FAA contends that the applicability of
3 proposed record transfer requirements that mandate not only
4 the transfer but also the receipt of specific information by
5 owners and operators upon delivery of an item is sufficient
6 to ensure the integrity of the proposed recordkeeping system
7 and the adequacy of maintenance information.

8 The proposal also would require that the authenticity
9 of the records transferred by a certificate holder with an
10 item be certified by a person authorized by the transferor.
11 The proposal would require an owner or operator to
12 authenticate the maintenance records contained in any
13 recordkeeping system. Methods to authenticate information
14 (records/reports) produced from a recordkeeping system may
15 be accomplished by various means. This may be accomplished
16 in the form of a certification that the current information
17 contained in the recordkeeping system conforms to the
18 information supplied at the original data entry. When used
19 with an electronic recordkeeping system acceptable to the
20 Administrator, this would not be an attestation of the
21 accuracy of each task represented in the records; however,
22 it would be a certification of data output from the
23 recordkeeping system. Such authenticity of the data is all
24 that is necessary for records acceptance and to place an
25 aircraft on an operating certificate. No other
26 authentication of the maintenance records would be required.

1 Certifying the authenticity of the transferred records
2 would only establish their conformance to the original
3 documentation on which records are based. It would not
4 certify the accuracy of the information contained in the
5 original documents. The FAA recognizes that copies of
6 records in either paper, microfilm, or electronic form, and
7 not the original work documents, may be used to satisfy
8 record transfer requirements. The FAA considers actual work
9 documents, regardless of their form, to be
10 self-authenticating. The FAA contends, however, that a
11 record authentication requirement should be mandated because
12 of the greater extent to which consolidated status
13 information would be transferred with aircraft, airframes,
14 aircraft engines, propellers, appliances, components, and
15 parts under the proposed rule. Because this information
16 would frequently be kept in automated records systems, the
17 FAA contends that verification of this information at the
18 time of transfer is essential to concurrently ensure the
19 recipient of the completeness and accuracy of the
20 transferred records. The person certifying the records may
21 be the transferor or a person specifically designated by the
22 owner or operator to perform this function (e.g., the
23 director of quality assurance). In view of the increased
24 use of electronic maintenance recordkeeping systems, this
25 certification also may be accomplished electronically;
26 however, the guarantees inherent in using an electronic

1 signature must be met for an electronic certification to be
2 acceptable.

3 When an aircraft, airframe, aircraft engine, propeller,
4 appliance, component, or part is transferred to have work
5 performed, the transferor only would be required to transfer
6 information sufficient to complete that work. Existing
7 regulations do not require the transfer of any maintenance
8 records to a person or repair facility performing work on an
9 item for an owner or operator. As a result, maintenance
10 personnel frequently receive items with insufficient
11 documentation to perform the work necessary to ensure their
12 approval for return to service. Without sufficient
13 information describing the current status and previous work
14 performed on an item, maintenance personnel may be unaware
15 of previous maintenance, preventive maintenance, rebuilding,
16 or alterations that could have a significant impact on the
17 manner in which they conduct any subsequent work. This
18 information also could help the repair facility determine
19 whether an item was involved in an accident or incident for
20 which specific action would be required. It also would
21 facilitate the subsequent exchange of an item to another
22 operator by the repair facility. In an exchange (i.e., when
23 a repair station provides a substitute equivalent item to an
24 owner or operator to replace an item originally received
25 from the owner or operator), the repair station would be

1 required to provide those records required to be maintained
2 by proposed § 91.417 for the item.

3 To ensure that these maintenance personnel receive all
4 documentation needed to assess the current status of an item
5 and to evaluate past work that may significantly affect the
6 manner in which subsequent work is performed, the FAA
7 proposes that all owners and operators provide information
8 necessary for the performance of the work to the individual
9 or maintenance facility that will be performing that work.
10 The FAA has not specifically defined the precise information
11 that would be provided to a maintenance facility because
12 this information would vary depending on the type of item
13 transferred and the specific nature of the work to be
14 performed.

15 Current §§ 91.419, 121.380a, and 135.441, which relate
16 to records transfers, refer to the transferal of records
17 kept "in plain language or in coded form." Because the
18 proposal would recognize maintenance recordkeeping systems
19 that permit the retention of records in paper, microfilm,
20 electronic, or any other form acceptable to the
21 Administrator that would permit their retrieval for use or
22 inspection by the Administrator, similar formats also would
23 be permitted for the transfer of these maintenance records.
24 The current language in these sections referring to the
25 transfer of records "in plain language or in coded form"
26 would be deleted.

1 Use of Electronic Recordkeeping Systems To Retain and
2 Transfer Required Maintenance Records and Record Entries

3

4 *Current Requirements*

5 Current maintenance recordkeeping regulations were not
6 drafted to contend with the intricacies of the complex
7 electronic recordkeeping systems available today. Although
8 maintenance records may be retained and transferred in
9 paper, microfilm, or electronic media, or any other format
10 that would permit their retrieval for use or inspection by
11 the Administrator, the requirements that would ensure the
12 integrity of the data contained in complex electronic
13 recordkeeping systems have not been promulgated. These
14 complex electronic maintenance recordkeeping systems did not
15 exist when the current regulations were enacted.

16 Because the regulations do not recognize the use of an
17 electronic signature, an owner, operator, or repair station
18 cannot readily implement a complete electronic recordkeeping
19 system for the retention and transfer of maintenance
20 records.

21 *Proposed Requirements*

22 In view of the expanding use of electronic media to
23 store maintenance records, the FAA proposes specific
24 requirements for electronic recordkeeping systems used to
25 retain and transfer maintenance records required by
26 §§ 91.417 and 91.419. Compliance with these proposed

1 requirements for electronic recordkeeping systems will
2 ensure the accuracy of any maintenance record, record entry,
3 or other information entered into an electronic
4 recordkeeping system. Such accuracy is essential to the
5 integrity of an electronic recordkeeping system. The
6 proposal also would permit a person who uses an electronic
7 recordkeeping system that complies with the proposed
8 requirements to transfer information contained in any
9 received maintenance record or record entry into an
10 electronic recordkeeping system. The proposal also would
11 permit that person to use the resulting record to satisfy
12 the record retention and transfer requirements of proposed
13 §§ 91.417 and 91.419. Because the proposal also would
14 permit the use of electronic signatures, the proposed rule
15 would permit all maintenance activity to be performed on an
16 aircraft, airframe, aircraft engine, propeller, appliance,
17 component, or part without recourse to the use of any paper
18 records. The proposal also would enable owners, operators,
19 and maintenance personnel to use electronic maintenance
20 logbooks to document work performed. Although the FAA
21 considered proposing requirements for electronic
22 recordkeeping systems that retain and transfer other types
23 of records, the FAA has not proposed any requirements for
24 these systems in this proposal.

25 Any person using an electronic recordkeeping system to
26 retain and transfer the maintenance records specified in

1 proposed §§ 91.417 and 91.419 would be required to ensure
2 that the system provides timely, reliable, and accurate
3 access to those maintenance records contained in the
4 electronic recordkeeping system. The user would be required
5 to ensure that the system contains audit procedures that
6 ensure the accuracy of any maintenance record, maintenance
7 record entry, or other information entered into the system.
8 The electronic recordkeeping system also would be required
9 to contain a security system that would protect the system
10 from any unauthorized use.

11 The security system would be required to monitor user
12 access, record and report any attempted unauthorized access,
13 and provide a record of any addition, change, or deletion of
14 any maintenance record, maintenance record entry, or other
15 information contained in the electronic recordkeeping
16 system. To ensure against possible destruction or loss of
17 the information contained in the electronic recordkeeping
18 system, the recordkeeping system also would be required to
19 provide for the backup of information entered into the
20 electronic recordkeeping system. These backup records
21 should be stored at a location separate from the primary
22 information storage facility and could be stored in paper,
23 microfilm, electronic, or any other form acceptable to the
24 Administrator.

25 To afford recipients of items whose maintenance records
26 are stored in the electronic recordkeeping system with the

1 requisite guarantee of the authenticity of the accompanying
2 maintenance records upon transfer of an item, the system
3 would be required to provide for the certification of
4 transferred maintenance records. Such certification would
5 indicate that the electronic records constitute the original
6 work documents or are composed of the exact information
7 input from original work documents (if the information were
8 not originally input into the system at the time the work
9 was actually performed). Again, the certification is not an
10 attestation as to the accuracy of the information contained
11 in the original documents, but rather a confirmation that
12 the information contained in the recordkeeping system
13 conforms to the information contained in the original
14 documentation. This certification need not be accomplished
15 by electronic means and should fulfill the requirement of
16 proposed § 91.419(a)(2).

17 Each electronic maintenance recordkeeping system would
18 be subject to inspection by the Administrator or any
19 authorized representative of the NTSB at any time. Each
20 owner or operator would be required to make available to the
21 Administrator or any authorized representative of the NTSB
22 any of the records contained in the system upon their
23 request.

24 To minimize the possibility of erroneous information
25 being entered into the system, the proposal also would
26 require that a person using such a system have a manual,

1 acceptable to the Administrator, that describes the
2 operation and use of the electronic recordkeeping system.
3 The manual would be required to include a description of the
4 electronic recordkeeping system, security provisions to
5 include a listing of those persons with the authority to
6 grant individuals access to the electronic recordkeeping
7 system, instructions for using system commands, and a
8 description of individual responsibilities necessary to
9 maintain system security. Those portions of the manual that
10 detail instructions for using system commands and contain a
11 description of individual responsibilities necessary to
12 maintain system security would be made available to every
13 individual with access to the electronic recordkeeping
14 system.

15 Adoption of the proposed requirements for electronic
16 recordkeeping systems and the proposed changes in the
17 definition of "signature" would permit an operator under
18 part 91, 121, 125, or 135; repair stations certificated
19 under part 145; and persons operating U.S.-registered
20 aircraft pursuant to part 129 to transfer all maintenance
21 records to an electronic recordkeeping system. The proposal
22 would therefore eliminate the need for retaining paper or
23 other hard copy records of work performed. In addition,
24 this proposal would allow maintenance records to be indexed
25 more easily, thereby decreasing the time necessary to locate
26 a maintenance record, which would eliminate hard copy

1 storage costs and expedite the transfer of items by
2 permitting the electronic transfer of maintenance records.

3 References requiring a certificate holder to set forth
4 in its manual a suitable system (including a coded system)
5 for the preservation and retrieval of information as
6 specified in §§ 121.369, 125.249, and 135.427 would be
7 revised to require the certificate holder to set forth in
8 its manual a system, acceptable to the Administrator, to
9 obtain, store, and retrieve required maintenance records.
10 Because § 91.423 of the proposal would specifically permit
11 the use of an electronic recordkeeping system, the current
12 references to "coded systems" in the aforementioned sections
13 would be deleted. Certificate holders would be permitted to
14 use maintenance recordkeeping systems that would provide for
15 the retention of records in paper, electronic, microfilm, or
16 any other format that would permit their retrieval for use
17 or inspection by the Administrator. Because the proposal
18 also establishes standardized record retention requirements
19 for all certificate holders and consolidates these
20 requirements in part 91, references in §§ 121.369, 125.249,
21 and 135.427 to the types of information that would be stored
22 in such a system would be deleted.

23 Because part 91 does not apply to repair stations, the
24 proposal sets forth similar requirements in proposed
25 § 145.65 that also would permit repair stations to use
26 electronic recordkeeping systems to satisfy their

1 maintenance recordkeeping requirements. Such provisions
2 would provide repair stations with the same benefits
3 available to owners or operators using an electronic
4 recordkeeping system. In addition to the benefits mentioned
5 above, electronic recordkeeping systems would facilitate the
6 transfer of items to repair stations for the purpose of
7 performing work and would expedite the integration of the
8 repair station's maintenance records with the records
9 retained in the owner's or operator's maintenance
10 recordkeeping system.

11 Description of Maintenance Recordkeeping Systems and the
12 Content, Distribution, and Form of Certificate Holder's
13 Manuals

14 *Current Requirements*

15 Sections 121.369(c) and 135.427(c) require that an
16 operator set forth in its manual a suitable system (which
17 may include a coded system) that preserves and retrieves
18 information in a manner acceptable to the Administrator, and
19 which provides: (1) a description (or reference to
20 acceptable data) of the work performed; (2) the name of the
21 person performing the work; and (3) the name or other
22 positive identification of the person approving the work.

23 Section 125.249(b) places a similar requirement on
24 part 125 operators; however, the person's certificate type
25 and number also are required. Although maintenance
26 recordkeeping requirements for part 91 and 125 operators are

1 specified in § 91.417, these operators are not required to
2 describe any record preservation and retrieval provisions in
3 a manual. Additionally, under § 129.14, persons operating
4 U.S.-registered aircraft pursuant to part 129 are required
5 to maintain each aircraft in accordance with a program
6 approved by the Administrator, but no requirement to place
7 this information in a maintenance manual exists.

8 Current § 121.133 details the requirements for
9 preparing manuals by certificate holders under part 121.
10 Paragraph (b) of this section permits a certificate holder
11 to prepare that part of its manual containing maintenance
12 information and instructions in printed form or other form
13 acceptable to the Administrator.

14 Current §§ 121.137, 125.71, and 135.21 specify the
15 requirements for the distribution of the maintenance part of
16 a certificate holder's manual to those individuals specified
17 in the manual. Current §§ 121.139 and 125.71 set forth
18 requirements to carry the maintenance portion of the manual
19 aboard aircraft used by certain certificate holders. These
20 sections state that if a certificate holder carries any part
21 of its maintenance manual aboard an aircraft in other than
22 printed form, it must carry a compatible reading device that
23 produces a legible image of the maintenance information and
24 instructions or a system that is able to retrieve the
25 maintenance information and instructions in the English
26 language. Section 135.21 formerly addressed the requirements

1 for certificate holders to carry manuals aboard an aircraft
2 when away from the principal base of operations. This
3 requirement was inadvertently deleted in Amendment
4 Nos. 135-66 (60 FR 13257, March 19, 1997).

5 *Proposed Requirements*

6 The proposal significantly revises the requirements for
7 completing maintenance record entries and for retaining and
8 transferring the information that must be contained in any
9 maintenance record. The specific capabilities of a
10 maintenance recordkeeping system, required to be described
11 in the manuals referred to in current §§ 121.369(c),
12 125.249(b), and 135.427(c), however, do not reflect the
13 changes that have been proposed to maintenance record entry
14 and record retention requirements, which may enhance the
15 recordkeeping systems of owners, operators, and repair
16 stations. Any description of a maintenance recordkeeping
17 system in a required manual should describe how the
18 recordkeeping system complies with all regulatory
19 requirements as specified in parts 43 and 91.

20 Current references to the specific types of information
21 that a maintenance recordkeeping system would be required to
22 provide would be deleted from §§ 121.369(c), 125.249(b),
23 and 135.427(c). These requirements are specifically stated
24 in § 43.9, which describes the content of maintenance
25 records. The proposal would revise current §§ 121.369(c),
26 125.249(b), and 135.427(c) to require a certificate holder

1 to set forth in its manual a system acceptable to the
2 Administrator to obtain, store, and retrieve required
3 maintenance records. This description should indicate how a
4 recordkeeping system complies with all applicable
5 maintenance recordkeeping requirements.

6 Additionally, to reduce confusion between current
7 references to maintenance manuals developed by product
8 manufacturers and maintenance manuals developed by
9 certificate holders under part 121, 125, 135, or 145 that
10 set forth maintenance policy and procedures, current
11 references to maintenance manuals developed by a certificate
12 holder would be revised to refer to a "certificate holder's
13 manual" or "manual."

14 The proposal also would require that the maintenance
15 record retention and transfer system used by an operator
16 under part 121, 125, 135, or foreign operators of
17 U.S.-registered aircraft under part 129, be protected from
18 unauthorized use. Nonelectronic recordkeeping systems, for
19 example, could use a system of secure filing cabinets with
20 access limited to specific personnel. Electronic
21 recordkeeping systems could use a security system that
22 includes many of the safeguards described in the previous
23 discussion of electronic signatures.

24 A description by an owner or operator of its
25 maintenance recordkeeping system also could include a
26 description of the recordkeeping system of another person

1 that supports the operations of the owner or operator and is
2 being used by the owner or operator to comply with its
3 maintenance recordkeeping requirements. This alternative
4 recordkeeping system would be required to comply with the
5 same provisions (except those relating to records
6 authentication) that an owner or operator would be required
7 to meet. The responsibility for compliance with any
8 applicable maintenance recordkeeping requirements, however,
9 would continue to remain with the owner or operator and not
10 with the party used by the owner or operator to satisfy its
11 recordkeeping requirements. Because the owner or operator
12 would continue to retain the overall responsibility for
13 regulatory compliance, authentication of any maintenance
14 records transferred from a recordkeeping system maintained
15 on behalf of the owner or operator would have to be
16 accomplished by the owner or operator; the responsibility
17 could not be delegated.

18 In view of the widespread use of electronic media not
19 contemplated by the existing rules, the FAA also proposes to
20 revise § 121.133(b) and add §§ 125.249(c) and 135.427(d) to
21 specifically permit an operator to prepare the portion of
22 its manual that contains maintenance information and
23 instructions in printed form, or other form acceptable to
24 the Administrator, that is in English or is retrievable in
25 the English language. Paper and microfilm formats would
26 continue to be permitted, as would electronic formats.

1 Prior to the recent implementation of a rule change to
2 § 121.133 (60 FR 65832, December 20, 1995) permitting part
3 121 certificate holders to maintain that portion of their
4 manual containing maintenance information and instructions
5 in a form acceptable to the Administrator, these portions of
6 the manual could only be maintained in paper or microfilm
7 form. The FAA had previously granted exemptions from the
8 regulations to operators permitting some uses of electronic
9 recordkeeping, and the FAA's favorable experience with these
10 exemptions permits the agency to propose expanding this
11 relief to certificate holders' manuals maintained pursuant
12 to parts 125 and 135. The FAA, however, would require that
13 any certificate holder's manual be retained in a format that
14 would be in English or retrievable in the English language.
15 The manual's format also should provide the FAA with readily
16 available access to its contents (e.g., in an electronic
17 format compatible with FAA systems or, if retained in a
18 noncompatible format, with the necessary hardware and
19 software to provide the FAA with ready access to its
20 contents).

21 Because the proposal would permit a certificate holder
22 to prepare the maintenance part of its manual in any form
23 acceptable to the Administrator that is in English or
24 retrievable in the English language, the FAA also proposes
25 to clarify and revise the distribution requirements for this
26 part of a certificate holder's manual found in §§ 121.137,

1 125.71, and 135.21. To provide maintenance personnel with
2 the ability to effectively use new forms of technology to
3 access maintenance information and instructions, the
4 proposal would permit a certificate holder to meet its
5 requirement to furnish this part of its manual to
6 appropriate maintenance personnel by making it available in
7 printed form or other form acceptable to the Administrator.
8 A certificate holder would not be required to furnish each
9 of these persons with a paper copy of this portion of its
10 manual. A certificate holder therefore could provide these
11 persons with an electronic copy of this part of its manual
12 or provide on-line access to the manual. The proposal,
13 however, would require a certificate holder to ensure there
14 is a compatible reading device available that provides a
15 legible image of the maintenance information and
16 instructions or is able to retrieve the maintenance
17 information and instructions when that part of the manual is
18 made available in other than printed form.

19 The proposal also would revise the requirements in
20 §§ 121.139, 125.71, and 135.21 pertaining to the carriage of
21 the manual aboard an aircraft. The proposal would only
22 require the certificate holder to have access to appropriate
23 parts of its manual when operating away from its principal
24 base. The proposal would not require appropriate parts of
25 the manual to be carried aboard an aircraft when operated
26 away from its principal base. The proposed change would

1 permit these operators to benefit from the use of on-line
2 data systems and other forms of electronic information
3 retrieval systems that are used to access maintenance
4 information and instructions at locations other than the
5 operator's principal base. If a certificate holder,
6 however, chooses to carry aboard an aircraft all or any
7 portion of the maintenance part of its manual in other than
8 printed form, it would be required to have access to a
9 compatible reading device that produces a legible image of
10 the maintenance information and instructions or a system
11 that is able to retrieve the maintenance information and
12 instructions when that part of the manual. This device
13 would not be required to be carried aboard the aircraft.

14 Retention of In-Service History Records for Life-Limited
15 Parts

16 *Current Requirements*

17 Sections 91.417, 121.380, and 135.439 require the
18 retention of a record specifying the current status of
19 life-limited parts. The FAA has determined that the term
20 "current status," as it applies to life-limited parts,
21 refers to a record indicating the time-in-service of a part
22 at the present (current) time and its specified life limit.
23 The FAA has required that records be kept from which the
24 current status of a life-limited part could be determined.
25 The FAA asserts that the current regulations do not require
26 historical records that are complete from the date of
27 manufacture; however, such records may be required where

1 there are insufficient records to determine the current
2 status of a life-limited part. The FAA's policy has been to
3 support the concept of minimal historical records, provided
4 that these records could be traced to historical source
5 documents from which the current status of a part could be
6 determined. Current regulations require that current status
7 records for life-limited parts be retained until an aircraft
8 is sold.

9 *Proposed Requirements*

10 The FAA's proposal continues to recognize that the
11 complete historical records used to determine the current
12 status of life-limited parts is the ideal situation. The
13 FAA also recognizes that other documentation short of
14 complete historical records may satisfy this requirement.
15 Therefore, the proposal would retain the current requirement
16 that a record of the current status of life-limited parts be
17 retained by owners and operators. It would, however,
18 specifically define those records that would be required
19 and, therefore, be considered sufficient to document the
20 current status of a life-limited part.

21 The FAA also proposes to require the retention of
22 records of the in-service history of the part for the period
23 of its service commencing 1 year after [the effective date
24 of the rule]. In service history records are not intended
25 to be the actual "dirty fingerprint" record of prior
26 installations and removals; however, as a minimum, the

1 in-service history record should include the same
2 information required to determine current status
3 information. It also should include: the total time of the
4 life-limited part as expressed in hours, cycles, or calendar
5 time, as applicable at each installation and removal of the
6 subject life-limited part from its corresponding higher
7 assembly; the total time of each higher assembly as
8 expressed in hours, cycles, or calendar time, as applicable
9 at each installation and removal; identification of each
10 higher assembly including the aircraft on which the part is
11 installed to include a description, manufacturer's part
12 number, and serial number; identification of any action that
13 has altered the part's life limit or changes the parameters
14 of its life limit (e.g., when an engine disk that was
15 installed on a low-thrust-rated engine is later installed on
16 a higher-thrust-rated engine, which requires a reduction in
17 the part's life limit). In-service history records
18 pertaining to the period prior to 1 year after [the
19 effective date of the rule] would not be required for
20 life-limited parts.

21 In accordance with the FAA's use of the more
22 encompassing term "transfer," an owner or operator would be
23 required to retain in-service history records of these items
24 until the part is transferred (as opposed to sold). The
25 owner or operator would provide these in-service history
26 records to the subsequent owner or operator concurrent with

1 the transfer of the item. The FAA contends that the ability
2 of an owner or operator to determine the current status of
3 life-limited parts is critical to aviation safety. By
4 designating those specific records that would be necessary
5 to determine the current status of life-limited parts, the
6 ability of owners, operators, and the FAA to ensure that
7 this information can be readily determined for every
8 life-limited part would be greatly enhanced.

9 The FAA will continue to require an owner or operator
10 to be able to demonstrate the current status of a
11 life-limited part that has been in service prior to the
12 effective date of the rule. Although the retention of
13 in-service records would not be specifically required to
14 demonstrate the current status of such a part, these records
15 are effectively the easiest means through which to obtain
16 current status information. In-service history records,
17 however, are only one of many tools that have been used to
18 demonstrate the current status of a life-limited part and of
19 the aircraft on which the part is installed.

20 The proposal to require owners and operators to
21 specifically retain in-service history records for a
22 life-limited part for which current status information is
23 already required should not be overly burdensome to owners
24 and operators, as this practice is widely accepted
25 throughout the industry as the predominant means of
26 determining the current status of life-limited parts. The

1 retention of such records, however, could be used to
2 determine the total time-in-service of a life-limited part
3 and avoid the possibility of differing interpretations among
4 owners and operators regarding what alternative records may
5 be used to determine the current status of an item in a
6 variety of unique situations.

7 The FAA considered limiting the retention of in-service
8 history records of life-limited parts for a period of time
9 equal to a percentage of a life-limited part's total life
10 limit or for a specific time period. The FAA rejected these
11 alternatives because it concluded that the actual period for
12 which such records would be required was unrelated to the
13 need for that information. A part's life limit may change,
14 based on the type of component upon which it is installed or
15 upon other operational parameters. Installation of a part
16 on a higher-level component could, therefore, feasibly
17 shorten a part's life limit such that in-service records
18 that were not required at an earlier time would later be
19 required.

20 Additionally, the FAA does not possess data that would
21 support limiting the retention of these critical records to
22 any specific period. The FAA determined that retention of
23 records based upon the concept "operational use" also could
24 lead to the possibility of significant confusion in the
25 implementation of the proposed rule.

1 Retention and Transfer of Records Pertaining to Major
2 Repairs

3 *Current Requirements*

4 Part 43, appendix B, explains the procedures for
5 recording major alterations and major repairs to aircraft,
6 airframes, aircraft engines, propellers, and appliances.
7 Section 135.439(a)(2)(vi) requires the retention of a
8 current list of major alterations and repairs to each
9 airframe, engine, propeller, rotor, and appliance. This
10 list must be transferred with the aircraft.
11 Section 121.380(a)(2)(vi) has similar requirements but only
12 for major alterations; § 121.707 requires operators to
13 complete a report of each major repair that must be
14 available for inspection by the Administrator.
15 Section 91.417(a)(2)(vi) requires that the forms required by
16 § 43.9(a) be retained only for major alterations.

17 *Proposed Requirements*

18 The FAA proposes to require each owner or operator to
19 retain and transfer records of major repairs to each
20 airframe, aircraft engine, propeller, appliance, component
21 and part. Information from the FAA's Aging Aircraft
22 Evaluation Program indicates that some operators do not
23 maintain a complete history of major repairs and that this
24 major repair information is not being transferred with
25 aircraft that are approved for return to service. During
26 the investigation of recent incidents, including an engine
27 failure, major repair data have not been available to

1 investigators. Based on the information from the Aging
2 Aircraft Evaluation Program and recent investigations, the
3 FAA has determined that a record of major repairs should be
4 maintained and that a receiving operator should be informed
5 of earlier major repairs to aircraft, airframes, aircraft
6 engines, propellers, appliances, components, and parts.
7 Transferring this critical information would enable a person
8 to verify the structural integrity of the aircraft or item
9 on which a major repair was performed.

10 Possession of this major repair information would be
11 crucial if a contemplated repair were required in proximity
12 to a previous major repair. The data used for the previous
13 major repair would help maintenance personnel analyze the
14 effect of the contemplated repair according to the design
15 criteria of the item and ensure that the repair would not
16 adversely affect the overall structural integrity of the
17 area where work would be performed. It also would
18 facilitate the completion of any other required analyses of
19 the contemplated repair, such as a required aeroelasticity
20 analysis, which could have a significant bearing on the
21 manner in which the contemplated repair would be
22 accomplished. Additionally, if an owner or operator were
23 aware of a major repair made to a specific area, the owner
24 or operator could ensure that any future inspection of the
25 area take into account any specific effects of the previous
26 major repair.

1 The proposal would not require the transfer of the
2 actual FAA-approved data if a reference to information
3 available from the manufacturer, repair station, person
4 performing the repair, or a public record, which contains
5 the data on which the repair is based, also were
6 transferred. The FAA would not require the supporting
7 engineering data for the repair to be transferred. However,
8 a technical reference, from which a description of the
9 manner and composition of the repair could be obtained,
10 would be required to be transferred. For example, if a
11 major repair to an airframe were performed according to the
12 specifications in the Structural Repair Manual, the name,
13 date, and appropriate pages of the manual would be an
14 acceptable reference. If the major repair data were
15 generated under SFAR No. 36 or by a designated engineering
16 representative, a specific reference to the technical data
17 file would be required to be provided to the subsequent
18 owner or operator. Actual work documents for the major
19 repair would not have to be provided. According to
20 paragraph 13(a) of SFAR No. 36, a technical data file must
21 include "all data and amendments thereto (including
22 drawings, photographs, specifications, instructions, and
23 reports) necessary to accomplish the major repair."
24 References to records of repairs that relied on promulgated
25 revisions of maintenance manuals, drawings, wiring diagrams,
26 or an illustrated parts catalog also would be examples of

1 the types of records that would be required to be retained
2 and transferred with an item. References to approved or
3 acceptable data also would have to be provided with the
4 record.

5 The proposal would also revise the requirements for the
6 submission of FAA Form 337. Currently the form must be
7 provided to the local Flight Standards District Office
8 within 48 hours after the item has been approved for return
9 to service. The FAA recognizes that major repairs are
10 frequently performed on items that may not be installed on
11 an aircraft until a substantial period of time after the
12 completion of the major repair. To afford persons
13 performing major repairs greater flexibility in the
14 submission of the FAA Form 337, the proposal would permit a
15 person to forward the FAA Form 337 to the local FSDO within
16 48 hours prior to the installation of the item on an
17 aircraft. Additionally the proposal would revise current
18 paragraph (a)(2) of appendix B to indicate that the owner of
19 an item, not only an aircraft, should be provided with a
20 copy of FAA Form 337.

21 Under the U.S.-Canada Bilateral Airworthiness Agreement
22 and pursuant to § 43.17, Canadian maintenance personnel may
23 perform a wide variety of maintenance tasks on
24 U.S.-registered aircraft. In view of this special
25 relationship, the FAA proposes that Canadian maintenance
26 personnel be permitted to use the Transport Canada

1 Conformity Certificate (Transport Canada Form 24-0045), to
2 document major repairs or major alterations made by
3 authorized Canadian Aircraft Maintenance Engineers and
4 Approved Maintenance Organizations to U.S.-registered
5 aircraft, airframes, aircraft engines, propellers,
6 appliances, and components. This form is essentially
7 equivalent to FAA Form 337 and would be treated by the FAA
8 as such; its use would serve merely to decrease the
9 administrative burden of obtaining a specific FAA form when
10 the Canadian equivalent provides the same information. The
11 processing of the Transport Canada Conformity Certificate
12 and FAA Form 337 would be identical.

13 Current § 91.203 requires that a fuel tank installed
14 within the passenger compartment or a baggage compartment of
15 an aircraft be installed pursuant to part 43 and that a copy
16 of the FAA Form 337 be carried aboard the aircraft. As the
17 FAA has received and granted petitions for exemption from
18 this requirement, based on the installation of these fuel
19 tanks by a manufacturer pursuant to part 21, the FAA
20 proposes to revise § 91.203 to permit persons to operate an
21 aircraft with a fuel tank installed within the passenger
22 compartment or a baggage compartment if the installation was
23 accomplished pursuant to part 21.

24 Review of Maintenance and Certification Records of Incoming
25 Items by Certificate Holders Operating Under Part 121, 125,

1 or § 135.411(a)(2), and Persons Operating U.S.-registered
2 Aircraft Pursuant to Part 129

3
4 To enhance the reliability of an operator's maintenance
5 recordkeeping system, the FAA proposes to require that the
6 manual of a certificate holder with a Continuous
7 Airworthiness Maintenance Program approved under part 121
8 or part 125, or § 135.411(a)(2) include, in the manual's
9 provisions-for-receiving procedures, a review of the
10 maintenance and certification records for all aircraft,
11 airframes, aircraft engines, propellers, appliances,
12 components, and parts. Currently, such procedures are
13 common in a certificate holder's operation but are not
14 required to be stipulated in the certificate holder's
15 manual. A similar requirement is proposed for persons
16 operating U.S.-registered aircraft pursuant to part 129.
17 Compliance with this proposal would ensure that aircraft,
18 airframes, aircraft engines, propellers, appliances,
19 components, and parts transferred with inadequate records
20 are promptly identified. Such a review would ensure that an
21 incoming item would only be integrated into the transferee's
22 maintenance program upon compliance with all maintenance
23 recordkeeping requirements.

24 If the records reviewed do not comply with regulatory
25 requirements (i.e., the missing information has a direct
26 negative impact on the determination of airworthiness), the

1 receiving owner or operator would be required to correct
2 such a deficiency prior to approving the item for return to
3 service. Such a requirement would be imposed on both
4 certificated operators, and owners and operators conducting
5 operations pursuant to part 91.

6 The review would determine whether the item's
7 maintenance and records complied with the requirements of
8 proposed § 91.420. For example, the review should include,
9 but not be limited to, a review of the records of: the
10 item's last scheduled inspection; the current status of
11 AD's, life-limited parts, major repairs, and major
12 alterations; any supplemental structural inspections or
13 damage tolerance inspections; and certification maintenance
14 requirements. If an item is received from a foreign source,
15 an owner or operator may find it necessary to evaluate the
16 recordkeeping system used by the foreign owner or operator
17 for compliance with International Civil Aviation
18 Organization or other applicable requirements.
19 Inclusion of a Section in Part 91 Prohibiting the
20 Falsification, Fraudulent Reproduction, or Alteration of
21 Maintenance Records Required by that Part

22 The proposal would require the creation and retention
23 of records not currently required under the provisions of
24 part 91. Current § 43.12 precludes the falsification or
25 fraudulent reproduction of records produced under the
26 provisions of part 43; however, this section pertains solely

1 to maintenance records and maintenance record entries
2 produced pursuant to part 43 but not to maintenance records
3 produced pursuant to the requirements of part 91. To ensure
4 a standardized system of record, production, retention, and
5 transfer, the FAA proposes that a similar provision,
6 § 91.425, be added to part 91, subpart E - "Maintenance,
7 Preventive Maintenance, and Alterations." This provision
8 would provide certificate holders with a regulatory basis on
9 which to counter any possible demands to falsify required
10 maintenance records. It also would ensure that effective
11 action could be taken against fraudulent practices
12 associated with the production, retention, and transfer of
13 maintenance records.

14 **Section-by-Section Analysis**

15 § 21.7

16 Proposed § 21.7 would establish a new requirement for
17 persons who produce items pursuant to a certificate,
18 authorization, approval, or authorization provided by the
19 Administrator. Proposed paragraph (a) would require these
20 persons to maintain certain records for an aircraft,
21 airframe, aircraft engine, propeller, appliance, component,
22 or part produced pursuant to that certification, approval,
23 or authorization after [1 year after the effective date of
24 the rule]. The proposed section would require the following
25 information to be maintained and transferred: (1) the name,
26 number, and serial number of the item; (2) weight and

1 balance information for any aircraft; (3) current status
2 information of applicable AD's; (4) the part and serial
3 number of any life-limited part, its total time-in-service,
4 and specified life limit; (5) a description of any
5 alterations or modifications accomplished in accordance with
6 a Supplemental Type Certificate; (6) the airworthiness
7 certificate, if applicable; and (7) evidence of the item's
8 production pursuant to a certificate, approval, or
9 authorization provided by the Administrator.

10 Proposed paragraph (b) would require these persons to
11 provide this information for an item transferred after
12 *[1 year after the effective date of the rule]*.

13 Proposed paragraph (c) would define the terms
14 "applicable standard," "component," "life-limited part,"
15 "part," and "transfer."

16 § 43.1

17 The heading of § 43.1 would be revised from
18 "Applicability" to "Applicability and definitions." The
19 proposal would revise paragraph (a)(3) by deleting the term
20 "component parts" and replacing it with the term
21 "component, or part". All other plural references in this
22 paragraph would be changed to the singular.

23 The proposal also would add paragraph (c) to the
24 current section. This new paragraph would define the terms
25 "applicable standard," "component," "life-limited part,"
26 "part," "signature," and "transfer."

1 § 43.2

2 The proposal would revise the introductory language of
3 paragraph (a) and paragraph (b) by deleting the term
4 "component part" and replacing it with the term "component,
5 or part."

6 § 43.3

7 The proposal would revise paragraph (a) by deleting the
8 term "component part" and replacing it with the term
9 "component, or part".

10 § 43.5

11 This proposal would revise the section by adding the
12 term "component, or part" to the introductory language.
13 Current § 43.5 specifies the requirements for approval for
14 return to service of an aircraft, airframe, aircraft engine,
15 propeller, or appliance, but omits the term "component, or
16 part." The proposal would correct this omission by
17 including components and parts in the list of items that may
18 be approved for return to service. This change would make
19 this section consistent with proposed § 43.7 (which would
20 specify those persons "authorized to approve aircraft,
21 airframes, aircraft engines, propellers, appliances,
22 components, or parts for return to service after
23 maintenance, preventive maintenance, rebuilding, or
24 alteration") and proposed § 43.9 (which would require that a
25 maintenance record entry be made after a person performed
26 maintenance, preventive maintenance, rebuilding, or

1 alteration to an aircraft, airframe, aircraft engine,
2 propeller, appliance, component, or part).

3 § 43.7

4 The proposal would revise paragraphs (a) through (e) by
5 deleting the term "component part" and replacing it with the
6 term "component, or part." It also would revise
7 paragraph (d) by replacing the current reference to
8 § 43.3(h) with § 43.3(j), remove obsolete references to
9 part 127 from paragraph (e), and include a reference to
10 part 119 in paragraph (e).

11 § 43.9

12 The proposal would revise the section heading to read
13 "Content of maintenance, preventive maintenance, rebuilding,
14 and alteration records (except inspections)," thereby
15 deleting any reference to CFR parts or sections to which
16 this section is not applicable. The proposal also would
17 revise the introductory language of paragraph (a) by
18 deleting the term "component part" and replacing it with the
19 term "component, or part."

20 The proposed section would specify the information to
21 be included in a maintenance record entry after work is
22 performed. Record entries would be required to be made in
23 English or retrievable in the English language. In addition
24 to the items currently required to be contained in a
25 maintenance record entry, the proposal would specifically
26 require that a reference to an appliance's, component's, or

1 part's name, number, and serial number (correlating to the
2 name, number, and serial number given to the appliance,
3 component, or part by its manufacturer) and the work order
4 number(s) be included in a maintenance record entry, as
5 applicable.

6 The proposal also would list certain specific actions
7 that should be recorded in a maintenance record entry as a
8 description of work performed. These actions would include,
9 but not be limited to: (1) compliance with an AD; (2) the
10 performance of a major repair (to include a reference to
11 approved technical data or technical data developed under
12 SFAR No. 36); (3) the performance of a major alteration (to
13 include a reference to approved technical data); (4) the
14 performance of an overhaul; (5) the installation of a
15 life-limited part; (6) the accomplishment of any task in a
16 maintenance program; and (7) the accomplishment of any
17 action specified in the Airworthiness Limitations section of
18 a manufacturer's maintenance manual or in the Instructions
19 for Continued Airworthiness. The reference to entries for
20 major repairs and major alterations currently found in
21 paragraph (a)(4) would be placed in proposed paragraph (b).

22 Provisions currently found in paragraph (b) permitting
23 certificate holders under parts 121 or 135 to make
24 maintenance record entries in accordance with the applicable
25 provisions of those parts would be deleted, and those
26 provisions pertaining to maintenance record entries made in

1 accordance with Continuous Airworthiness Maintenance
2 Programs currently found in paragraph (b) would be placed in
3 proposed paragraph (a)(2)(vi), which would refer to a
4 "maintenance program." Proposed paragraph (a)(6) would
5 permit an individual to use other positive identification
6 that complies with a certificate holder's manual in lieu of
7 using the individual's handwritten signature, certificate
8 number, and kind of certificate when approving an item for
9 return to service. Obsolete references to part 127 would be
10 deleted.

11 The proposal also would revise paragraph (c) to reflect
12 the nonapplicability of the section's requirements to
13 persons performing inspections in accordance with
14 part 91, 121, 125, 129, or 135.

15 § 43.11

16 Current § 43.11 is applicable only to the performance
17 of inspections conducted under 14 CFR parts 91, 123,
18 and 125, and §§ 135.411(a)(1) and 135.419. The proposal
19 would revise the applicability of this section to encompass
20 inspections conducted under parts 91, 121, 125, 129,
21 and 135. It also would delete the obsolete reference
22 pertaining to the applicability of this section to
23 inspections conducted under part 123. These changes would
24 be reflected in the section heading and in paragraphs (a),
25 (a)(7), and (b). Proposed paragraph (a)(3) would be revised
26 to indicate that an individual may use other positive

1 identification that complies with a certificate holder's
2 manual in lieu of using the individual's handwritten
3 signature, certificate number, and kind of certificate when
4 approving or disapproving an item for return to service.

5 The proposal would revise the introductory language of
6 paragraph (a) by deleting the term "component part" and
7 replacing it with the term "component, or part." It also
8 would require that records of inspections made pursuant to
9 this section be made in English or be retrievable in the
10 English language.

11 The reference to "owner or lessee" in paragraph (b) of
12 this section would be replaced with "owner or operator."
13 The FAA has determined that a reference to "owner or
14 operator" is sufficient to include lessees as persons
15 responsible for maintaining an aircraft and its records. A
16 reference to inoperative instruments and equipment currently
17 specified in § 91.30 would be corrected by replacing the
18 reference with § 91.213, the correct section.

19 § 43.15

20 The proposal would revise paragraphs (a) and (a)(2) by
21 deleting an obsolete reference to part 123 and by expanding
22 the applicability of the section to inspections conducted
23 under parts 121 and 129.

24 § 43.16

25 The proposal would revise the section by deleting an
26 obsolete reference to part 123, by referencing Operations

1 Specifications approved under parts 121 and 129, and by
2 referring to inspection programs selected under § 91.409(e).

3 Appendix B to Part 43

4 The proposal would revise paragraph (a) by changing
5 the reference to "aircraft owner" in paragraph (a)(2) to
6 "owner or operator." A similar change also would be made in
7 paragraphs (b)(2) and (c). Paragraph (a) also would be
8 revised to require a person performing a major repair or
9 major alteration to give a signed copy of FAA Form 337 to
10 the owner or operator of the item (not just an aircraft) on
11 which the major repair or major alteration was performed.
12 The paragraph would also be revised to permit a person
13 performing a major repair or major alteration to provide the
14 local FSDO with a copy of FAA Form 337 within 48 hours after
15 the item has been installed on an aircraft.

16 The proposal would delete the provision in
17 paragraph (b)(3), permitting a repair station to provide a
18 maintenance release as one of the required alternative means
19 of complying with the requirements of current paragraph (a).
20 The proposal, however, would not prohibit a repair station
21 from issuing a maintenance release. The proposal would
22 require a repair station to include on the customer's work
23 order certain information that is currently required on the
24 maintenance release. The information specified on the work
25 order would include the identity of the aircraft, airframe,
26 aircraft engine, propeller, appliance, component, or part,

1 and either: (1) the make, model, serial number,
2 registration marks, and location of the repaired area for an
3 aircraft; or (2) the manufacturer's name, the part name, the
4 model, and serial numbers for an airframe, aircraft engine,
5 propeller, appliance, component, or part.

6 If a repair station records a major repair, the
7 proposal would continue to require it to supply a statement
8 attesting that the repair and inspection had been
9 accomplished in accordance with the regulations and that the
10 item had been approved for return to service. The statement
11 would be identical to the current requirement, except that
12 the reference to the "Federal Aviation Agency" would be
13 revised to refer to the "Federal Aviation Administration,"
14 and the statement would indicate that the approval for
15 return to service is only with respect to the work
16 performed.

17 Paragraph (c) would be revised to clarify that a person
18 authorized by § 43.17 who performs a major repair or major
19 alteration, and not the person authorized to approve that
20 work, would be singularly responsible for ensuring that
21 FAA Form 337 or Transport Canada Form 24-0045 (Conformity
22 Certificate) is executed. Proposed paragraph (d) also would
23 be revised to clarify that separate copies of the completed
24 FAA Form 337 or Transport Canada Form 24-0045 must be given
25 to both the owner or operator and the FAA.

1 Paragraph (d) would be revised to permit a person
2 installing a fuel tank in a passenger or baggage compartment
3 under § 43.17 to use Transport Canada Form 24-0045 in lieu
4 of FAA Form 337. The proposal also would make the person
5 performing the installation of the fuel tank singularly
6 responsible for the execution of FAA Form 337 or Transport
7 Canada Form 24-0045, as appropriate.

8 § 91.2

9 The proposed section would define the terms "applicable
10 standard," "component," "life-limited part," "part," and
11 "transfer."

12 § 91.203

13 The proposal would revise paragraph (c) by permitting
14 the operation of an aircraft with a fuel tank installed
15 within the passenger compartment or baggage compartment
16 pursuant to part 21. It also would permit the operation of
17 an aircraft with a fuel tank installed within the passenger
18 compartment or baggage compartment when a copy of Transport
19 Canada Form 24-0045 authorizing the installation is on board
20 the aircraft.

21 § 91.401

22 The proposal would consolidate maintenance
23 recordkeeping and transfer requirements for all owners and
24 operators in proposed §§ 91.417 and 91.419. Paragraph (b)
25 of this section would therefore be revised by deleting the
26 reference to §§ 91.417 and 91.419, which are sections that

1 currently do not apply to aircraft maintained under a
2 Continuous Airworthiness Maintenance Program as provided in
3 part 121, 125, or 129, or § 135.411(a)(2). Proposed
4 paragraph (b) would be revised to indicate that §§ 91.207(d)
5 and 91.413 do not apply to aircraft maintained under a
6 Continuous Airworthiness Maintenance Program as provided in
7 part 121, 125, or 129, or § 135.411(a)(2).

8 § 91.417

9 Proposed § 91.417 would consolidate the maintenance
10 record retention requirements for all certificate holders
11 operating under part 121, 125, or 135; persons operating
12 aircraft pursuant to part 91; and persons operating
13 U.S.-registered aircraft pursuant to part 129 in one single
14 section of the regulations. Proposed § 91.417 would
15 prescribe the minimum maintenance recordkeeping requirements
16 for all owners and operators, regardless of the operational
17 rule under which an aircraft or other item is used. The
18 section heading would be revised to read "Maintenance
19 records." This section would supersede the requirements
20 currently found in §§ 121.380, and 135.439, which would be
21 deleted.

22 Paragraph (a) would be revised to delete the exception
23 for work performed in accordance with current §§ 91.411
24 and 91.413.

25 Paragraph (a)(1) would revise the current section by
26 specifically requiring the retention of maintenance,

1 preventive maintenance, rebuilding, and alteration records
2 for components and parts made in accordance with § 43.9.
3 The proposal, in paragraph (b)(1), would require that these
4 records be retained for 1 year, until repeated or
5 superseded, or in accordance with a certificate holder's
6 manual.

7 Paragraph (a)(2) would revise the current section by
8 specifically requiring the retention of records of any
9 inspection required to be performed on a component or part
10 made in accordance with § 43.11. As the proposal would
11 consolidate the retention of maintenance recordkeeping
12 requirements in part 91, the current exception pertaining to
13 the retention of records for work performed in accordance
14 with §§ 91.411 and 91.413 would be deleted (as mentioned
15 above). Records of inspection program tasks also would be
16 included specifically among those records required to be
17 retained by this section. Records of work performed in
18 accordance with this section would be retained until
19 superseded or repeated, as noted in proposed
20 paragraph (b)(2).

21 Currently, the records referred to in the preceding
22 two paragraphs are required to be retained only for aircraft
23 (including the airframe), aircraft engines, propellers,
24 rotors, and appliances. Proposed paragraphs (a)(1)
25 and (a)(2) would remove any reference to the term "rotor"

1 because that term is encompassed in the definition of
2 "airframe," and would add the terms "component" and "part."

3 Proposed paragraph (a)(3) would require all owners and
4 operators to retain weight and balance records for each
5 aircraft. The proposal, in paragraph (b)(3), would require
6 that these records be in English or retrievable in the
7 English language.

8 Proposed paragraph (a)(4) would keep the current
9 requirement to retain total time-in-service information for
10 airframes, aircraft engines, and propellers. The reference
11 to the term "rotor" would be deleted.

12 Proposed paragraph (a)(5) would revise the requirement
13 to retain current status information for life-limited parts
14 by requiring that retained current status information
15 include a record of the cumulative time since manufacture,
16 rebuilding, or overhaul (total time-in-service), and the
17 part's specified life limit. The records specified in this
18 paragraph would be required to be retained by each owner or
19 operator until the item is transferred.

20 Proposed paragraph (a)(6) would require retention of an
21 in-service history of each life-limited part beginning
22 1 year after the effective date of the rule. The in-service
23 history would be required to include a record of the removal
24 and installation of the part and a record of any action that
25 has altered a part's life limit or changed the parameters of
26 its life limit. The records specified in this

1 paragraph also would be required to be retained by each
2 owner or operator until the item is transferred.

3 Proposed paragraph (a)(7) would specify the records
4 that all owners or operators must retain to document the
5 current overhaul status of each airframe, aircraft engine,
6 propeller, appliance, component, or part that is required to
7 be overhauled on a specified time basis under the inspection
8 or maintenance program approved for the owner or operator.
9 The overhaul interval and the time when the last overhaul
10 was performed would be required to be retained.

11 Proposed paragraph (a)(8) would expand the requirement
12 for the retention of records of current inspection status by
13 requiring these records for airframes, aircraft engines,
14 propellers, and appliances. The current rule requires that
15 these records be retained for aircraft only. The proposed
16 rule would specify that this information include the
17 inspection interval and the time when the last inspection
18 was performed.

19 Proposed paragraph (a)(9) would set forth the specific
20 information that would be required to document the current
21 status of AD's. It also would require that the current
22 status of applicable AD's for all airframes, aircraft
23 engines, propellers, appliances, components, and parts would
24 be retained by all owners and operators. A revision number,
25 revision date, or amendment number would be required to

1 refer to an AD to which a revision or amendment has been
2 made.

3 Current language requiring the time and date of the
4 next required action for a recurring AD would be revised to
5 require an entry stating the interval to the next required
6 action, as expressed by the applicable standard. It also
7 would require that the record identify the particular item
8 to which the AD applies, the date when the required action
9 was last accomplished, and the time-in-service of the item
10 if required by the AD. The proposal also would require that
11 the method of compliance be indicated by reference to a
12 specific action described in the AD, a specific description
13 of the work performed, or a description of an alternative
14 method approved by the Administrator.

15 Proposed paragraphs (a)(10) and (a)(11) would require
16 that records of major alterations and major repairs be
17 retained for aircraft, airframes, aircraft engines,
18 propellers, and appliances. References to approved
19 technical data, data developed under SFAR NO. 36, or, in the
20 case of experimental aircraft not previously issued another
21 type of airworthiness certificate, technical data used as a
22 basis for certification also would have to be retained. The
23 current section requires only that copies of the forms
24 prescribed by § 43.9(a), for each major alteration to the
25 airframe and currently installed engines, rotors,
26 propellers, and appliances, be retained.

1 Proposed paragraph (a)(12) would require an owner or
2 operator to retain evidence indicating that the aircraft,
3 airframe, aircraft engine, propeller, appliance, component,
4 or part was produced pursuant to a certificate, approval, or
5 authorization provided by the Administrator. This evidence
6 could consist of actual approval documents or records
7 indicating that an item had been inspected and accepted by a
8 person required to conduct a receiving inspection of the
9 item's records as specified under §§ 121.369(b)(10),
10 125.249(a)(3)(viii), 129.14(a)(2), 135.427(b)(10), or
11 part 145.

12 Proposed paragraph (b) would clarify record retention
13 requirements. The records specified in proposed
14 paragraph (a)(1) would be required to be retained for
15 1 year, until the work has been superseded or repeated, or
16 in accordance with a certificate holder's manual; however,
17 records of the 100-hour, annual, progressive, and other
18 inspection program tasks would be required to be retained
19 until the work is superseded or repeated. All other records
20 referenced in § 91.417 would be required to be in English or
21 retrievable in the English language by each operator and be
22 retained until the item is transferred; however, the
23 proposed records of an aircraft's weight and balance would
24 be required to be retained only until superseded. Those
25 records specified in proposed paragraphs (a)(1) and (a)(2),
26 would not be required to be in English or retrievable in

1 English. The applicability of any additional
2 record-retention requirements not specified in the current
3 rule would commence with the corresponding effective date
4 specified in the proposed rule.

5 Current § 43.11 refers to the creation of a "list of
6 discrepancies" after an inspection is performed. The
7 proposed revision to paragraph (c) would replace the term
8 "defects" with "discrepancies" to bring the terminology of
9 these two sections into agreement.

10 Proposed paragraph (d) would consolidate the current
11 requirements for the retention of airworthiness releases.
12 It would contain the requirements currently found in
13 §§ 121.380(a)(1) and 135.439(a)(1) for a certificate holder
14 to retain the records necessary to demonstrate that the
15 requirements for an airworthiness release had been met. The
16 proposal also would permit the use of an equivalent log
17 entry. The proposal would require that an owner or operator
18 retain these records only for 1 year or until the work is
19 repeated or superseded by work of equal scope.

20 Proposed paragraph (e) would require that each owner or
21 operator, who is required to have set forth in its manual a
22 recordkeeping system acceptable to the Administrator in
23 order to obtain, store, and retrieve required maintenance
24 records, use that system to retain the records specified in
25 proposed § 91.417.

1 Proposed paragraphs (f) and (g) would permit owners and
2 operators to use the Transport Canada Conformity Certificate
3 (Transport Canada Form 24-0045) to document the installation
4 of a fuel tank installed within the passenger or baggage
5 compartment of an aircraft under the provisions of § 43.17.
6 Proposed paragraph (f) would require an owner or operator to
7 provide the Administrator, or any authorized representative
8 of the NTSB, with a copy of any maintenance record required
9 to be retained by this section. The record would be
10 required to be in English, either in paper or other media
11 acceptable to the requester.

12 § 91.419

13 Section 91.419 requires the transfer of those
14 maintenance records specified in § 91.417 upon the sale of a
15 U.S.-registered aircraft. Paragraph (a)(1) would require
16 that all maintenance records required to be retained by
17 proposed § 91.417(a), (b), (c), (d), and (g) be transferred
18 not only upon the sale of a U.S.-registered aircraft, but
19 also upon any transfer of an aircraft, airframe, aircraft
20 engine, propeller, appliance, component, or part that is
21 approved for return to service. Proposed paragraph (a)(2)
22 would require the transferor to certify the authenticity
23 (but not accuracy) of the information contained in all
24 transferred records. If the item is not approved for return
25 to service, the transferor would be required under proposed
26 paragraph (b) to provide the recipient with a statement

1 indicating that the item is not approved for return to
2 service and the basis for that determination.

3 Proposed paragraph (c) would require any owner or
4 operator who transfers an item for the purpose of having
5 work performed, to transfer information sufficient to ensure
6 completion of the work to be performed.

7 § 91.420

8 This proposed new section would require an owner or
9 operator receiving an aircraft, airframe, aircraft engine,
10 propeller, appliance, component, or part produced pursuant
11 to a certificate, approval, or authorization provided by the
12 Administrator after *[1 year after the effective date of the*
13 *rule]* to obtain, at the time of receipt, the records listed
14 in § 21.7, or equivalent information contained in records
15 that meet the requirements of § 91.417.

16 Proposed paragraph (b) would require each owner or
17 operator who receives an aircraft, airframe, aircraft
18 engine, propeller, appliance, component, or part to obtain
19 the records listed in § 91.417(a), (b), (c), (d), and (g) at
20 the time of transfer.

21 Proposed paragraph (c) retains the requirements of
22 current § 91.419(b) and would continue to permit the
23 preceding owner or operator to keep physical custody of
24 records for items transferred to a subsequent owner or
25 operator. It also would continue to require the owner or
26 operator to make such records available for inspection.

1 § 91.423

2 This proposed new section would establish requirements
3 for persons using an electronic recordkeeping system for the
4 retention and transfer of maintenance records. The proposed
5 section would mandate user access requirements, audit
6 procedures, security requirements, required system records,
7 system backup procedures, and record certification
8 provisions. These requirements would be found in proposed
9 paragraph (a).

10 Proposed paragraph (b) would require an owner or
11 operator to make the records contained in the electronic
12 recordkeeping system available to the Administrator or NTSB
13 upon request.

14 Proposed paragraph (c) would permit certificate holders
15 to transfer information contained on any maintenance record
16 or record entry to the electronic recordkeeping system and
17 to use the resulting electronic record to satisfy the record
18 retention and transfer requirements of §§ 91.417 and 91.419.

19 Proposed paragraph (d) establishes a requirement for
20 the user of an electronic recordkeeping system to possess a
21 manual that describes the operation and use of the
22 electronic recordkeeping system.

23 § 91.425

24 This proposed new section is based on similar
25 requirements found in current § 43.12. The section would
26 prohibit any fraudulent or intentionally false entry in, or

1 any reproduction or alteration for fraudulent purpose of,
2 any document, form, report, or record required to be made,
3 kept, or used to show compliance with any requirement under
4 the recordkeeping requirements of part 91, subpart E.

5 § 119.3

6 The proposal would add the term "signature" to the list
7 of definitions that are applicable to subchapter G. The
8 proposed definition would facilitate the use of electronic
9 and other acceptable forms of signatures by owners,
10 operators, and certificate holders subject to the
11 requirements of that subchapter.

12 § 121.133

13 The proposal would revise paragraph (b) by requiring
14 that portion of a certificate holder's manual containing
15 maintenance information and instructions to be prepared in
16 English or be retrievable in the English language. The
17 proposed language is identical to that found in proposed
18 §§ 125.249(c) and 135.427(d).

19 § 121.137

20 The proposal would revise paragraph (c) by permitting a
21 certificate holder to comply with the distribution
22 requirements of paragraph (a) by making the maintenance part
23 of its manual available in printed form or other form
24 acceptable to the Administrator that is in English or
25 retrievable in the English language. It would also require
26 a certificate holder to ensure there is a compatible reading

1 device or system available to those persons to whom it
2 furnishes the maintenance part of its manual in other than
3 printed form. The device or system would be required to be
4 able to provide a legible image of the maintenance
5 information and instructions or be able to retrieve the
6 maintenance information and instructions in the English
7 language.

8 § 121.139

9 The proposal would revise paragraph (a) by requiring a
10 certificate holder conducting supplemental operations to
11 only have access to appropriate parts of its manual when the
12 aircraft is away from the principal base. If the
13 certificate carries appropriate parts of its manual aboard
14 the aircraft in other than printed form, it must have access
15 to a reading device, or a system able to produce a legible
16 image of the maintenance information and instructions or a
17 system that is able to retrieve the maintenance information
18 instructions in English.

19 § 121.369

20 The proposal would revise this section by requiring a
21 certificate holder to include in its manual a description of
22 procedures that would be used to ensure that the records and
23 record entries transferred with any item it receives are
24 reviewed for compliance with proposed § 91.420. The
25 proposal also would modify the current language of the rule
26 by requiring a certificate holder to set forth in its manual

1 a system acceptable to the Administrator to obtain, store,
2 and retrieve required maintenance records. The proposal
3 would require this system to be protected from unauthorized
4 use and access. Because any acceptable system would be
5 required to meet the provisions of proposed §§ 43.9 and
6 91.417, the information requirements of current
7 paragraphs (c)(1), (c)(2), and (c)(3) would be deleted.

8 § 121.380

9 This section would be removed and reserved. All
10 maintenance record retention requirements for certificate
11 holders under this part would be found in proposed § 91.417.

12 § 121.380a

13 This section would be removed and reserved. All
14 maintenance record transfer requirements for certificate
15 holders under this part would be found in proposed § 91.419.

16 § 125.71

17 The proposal would revise paragraph (f) by permitting a
18 certificate holder to comply with the distribution
19 requirements of paragraph (d) by making the maintenance part
20 of its manual available in printed form or other form
21 acceptable to the Administrator that is in English or
22 retrievable in the English language. It would also require
23 a certificate holder to ensure there is a compatible reading
24 device or system available to those persons to whom it
25 furnishes the maintenance part of its manual in other than
26 printed form. The device or system would be required to be

1 able to provide a legible image of the maintenance
2 information and instructions or be able to retrieve the
3 maintenance information and instructions in the English
4 language.

5 The proposal would revise paragraph (g) by requiring a
6 certificate holder to only have access to appropriate parts
7 of its manual for each airplane when the aircraft is away
8 from the principal operations base. If the certificate
9 holder carries appropriate parts of its manual aboard the
10 aircraft in other than printed form, it would be required to
11 have access to a reading device, or a system able to
12 produce a legible image of the maintenance information and
13 instructions or a system that is able to retrieve the
14 maintenance information instructions in English.

15 § 125.249

16 The proposal would revise the section heading from
17 "Maintenance manual requirements" to "Manual requirements."
18 The proposal also would revise this section by requiring
19 that an operator set forth in its manual a system acceptable
20 to the Administrator to obtain, store, and retrieve required
21 maintenance records. This system would be required to be
22 protected from unauthorized use and access. This
23 requirement would be identical to those in proposed
24 §§ 121.369 and 135.427. Because any acceptable system would
25 be required to meet the provisions of proposed §§ 43.9
26 and 91.417, the information requirements of current

1 paragraphs (b)(1), (b)(2), and (b)(3) would be deleted. The
2 proposal to add paragraph (a)(3)(viii), which would
3 establish a requirement to review the maintenance and
4 certification records of any item received for compliance
5 with § 91.420, would necessitate minor editorial revisions
6 to current paragraphs (a)(3)(vi) and (a)(3)(vii).

7 The proposal would add proposed paragraph (c), which
8 would require certificate holders to prepare that part of
9 their manuals containing maintenance information and
10 instructions in printed form or other form acceptable to the
11 Administrator that is in English or retrievable in the
12 English language. The proposed language is identical to
13 that found in proposed §§ 121.133(b) and 135.427(d).

14 § 129.14

15 This section would be revised by modifying the title to
16 read "Maintenance program, maintenance recordkeeping, and
17 minimum equipment list requirements for U.S.-registered
18 aircraft." Paragraph (a) would be revised to require
19 operators to ensure that any record transferred with an item
20 is reviewed for compliance with proposed § 91.420. The
21 proposal also would require an operator to use a system
22 acceptable to the Administrator to obtain, store, and
23 retrieve required maintenance records. This system would be
24 required to be protected from unauthorized use and access.

1 § 135.21

2 The proposal would revise paragraph (f) by permitting a
3 certificate holder to comply with the distribution
4 requirements of paragraph (d) by making the maintenance part
5 of its manual available in printed form or other form
6 acceptable to the Administrator that is in English or
7 retrievable in the English language. It would also require
8 a certificate holder to ensure there is a compatible reading
9 device or system available to those persons to whom it
10 furnishes the maintenance part of its manual in other than
11 printed form. The device or system would be required to be
12 able to provide a legible image of the maintenance
13 information and instructions or be able to retrieve the
14 maintenance information and instructions in the English
15 language.

16 The proposal would revise paragraph (g) by requiring a
17 certificate holder to only have access to appropriate parts
18 of its manual for each airplane when the aircraft is away
19 from the principal operations base. If the certificate
20 holder carries appropriate parts of its manual aboard the
21 aircraft in other than printed form, it would be required to
22 have access to a reading device, or a system able to produce
23 a legible image of the maintenance information and
24 instructions or a system that is able to retrieve the
25 maintenance information instructions in English.

1 § 135.427

2 The proposal would revise this section by adding
3 paragraph (b)(10), which would require an operator to set
4 forth in its manual procedures to review any maintenance
5 records and record entries transferred with an item for
6 compliance with § 91.420. The FAA also proposes to revise
7 this section by adding paragraph (c), which would require an
8 operator to set forth in its manual a system acceptable to
9 the Administrator to obtain, store, and retrieve required
10 maintenance records. This system would be required to be
11 protected from unauthorized use and access. These
12 requirements would be identical to those set forth in
13 proposed §§ 121.369 and 125.249. Because any acceptable
14 system would be required to meet the provisions of proposed
15 § 91.419, the information requirements of current
16 paragraphs (c)(1), (c)(2), and (c)(3) would be deleted.

17 The proposal would add proposed paragraph (d), which
18 would require a certificate holder to prepare that part of
19 its manual containing maintenance information and
20 instructions in printed form, or other form acceptable to
21 the Administrator that is in English or retrievable in the
22 English language. The proposed language is identical to
23 that found in proposed §§ 121.133(b) and 125.249(c).

1 § 135.439

2 This section would be removed and reserved. All
3 maintenance record retention requirements for certificate
4 holders under this part would be found in proposed § 91.417.
5 § 135.441

6 This section would be removed and reserved. All
7 maintenance record transfer requirements for certificate
8 holders under this part would be found in proposed § 91.419.
9 § 145.65

10 The proposed section would establish requirements for a
11 repair station using an electronic recordkeeping system to
12 retain and transfer maintenance records. The proposed
13 section would specify user access requirements, audit
14 procedures, security requirements, required system records,
15 system backup procedures and record certification
16 provisions. These requirements would be found in proposed
17 paragraph (a).

18 Proposed paragraph (b) would require an owner or
19 operator to make the records contained in the electronic
20 recordkeeping system available to the Administrator or NTSB
21 upon request.

22 Proposed paragraph (c) would permit a repair station to
23 transfer information contained in any maintenance record or
24 record entry to the electronic recordkeeping system and use
25 the resulting electronic record to satisfy the record
26 retention requirements of the chapter.

1 Proposed paragraph (d) would establish a requirement
2 for the user of an electronic recordkeeping system to
3 possess a manual that describes the operation and use of the
4 electronic recordkeeping system.

5 § 145.67

6 The proposed section would establish requirements for
7 the transfer of maintenance records from a repair station
8 when the repair station transfers any item. Except in those
9 instances when an item is transferred for the purpose of
10 having work performed, proposed paragraph (a)(1) would
11 require a repair station transferring an aircraft, aircraft
12 engine, propeller, appliance, component, or part that is
13 approved for return to service to transfer those maintenance
14 records required by proposed § 91.417(a), (b), (c), (d), and
15 (g).

16 In those instances where a repair station transfers an
17 item that is not approved for return to service, proposed
18 paragraph (a)(2) would permit a repair station to transfer
19 the item with a statement indicating that the item is not
20 approved for return to service which would contain the basis
21 for that determination.

22 Proposed paragraph (a)(3) would require the repair
23 station to certify the authenticity of any records
24 transferred.

25 In those instances where an item is being transferred
26 for the purpose of having work performed, proposed

1 paragraph (b) would require only the transferal of
2 information sufficient to ensure completion of the work.

3 § 145.69

4 This proposed new section would require a repair
5 station receiving an aircraft, airframe, aircraft engine,
6 propeller, appliance, component, or part produced pursuant
7 to a certificate, approval, or authorization provided by the
8 Administrator after *[1 year after the effective date of the*
9 *rule]* to obtain, at the time of receipt, the records listed
10 in § 21.7, or equivalent information contained in records
11 that meet the requirements of § 91.417.

12 Proposed paragraph (b) would require each repair
13 station that receives an aircraft, airframe, aircraft
14 engine, propeller, appliance, component, or part that is
15 approved for return to service to obtain the records listed
16 in § 91.417(a), (b), (c), (d), and (g) at the time of
17 transfer.

18 Proposed paragraph (c) would require each repair
19 station that receives an item that is not approved for
20 return to service to obtain a statement indicating that the
21 item is not approved for return to service and the basis for
22 that determination.

23 Proposed paragraphs (d) would require a repair station
24 receiving an item for the purpose of performing work on that
25 item to ensure the receipt of records sufficient to ensure
26 completion of the work.

1 **Paperwork Reduction Act**

2 TO BE PROVIDED LATER.

3 **Regulatory Evaluation Summary**

4 TO BE PROVIDED LATER.

5 **International Trade Impact Analysis**

6 TO BE PROVIDED LATER.

7 **Regulatory Flexibility Determination**

8 TO BE PROVIDED LATER.

9 **Federalism Implications**

10 The regulations proposed herein would not have
11 substantial direct effects on the States, on the
12 relationship between the national Government and the States,
13 or on the distribution of power and responsibilities among
14 the various levels of government. Therefore, in accordance
15 with Executive Order 12612, it is determined that this
16 proposal would not have sufficient federalism implications
17 to warrant the preparation of a Federalism Assessment.

18 **International Civil Aviation Organization and Joint Aviation**
19 **Requirements**

20 In keeping with U.S. obligations under the Convention
21 on International Civil Aviation, it is FAA policy to comply
22 with the Standards and Recommended Practices of the
23 International Civil Aviation Organization to the maximum
24 extent practicable. The FAA is not aware of any differences
25 that this proposal would present if adopted. Any
26 differences that may be presented in comments to this
27 proposal, however, will be taken into consideration.

1 **Conclusion**

2 TO BE PROVIDED LATER.

3 **List of Subjects**

4 14 CFR Part 21

5 Air transportation, Aircraft, Aviation safety, Safety.

6 14 CFR Part 43

7 Air carriers, Air transportation, Aircraft, Aviation
8 Safety, Reporting and recordkeeping requirements, Safety.

9 14 CFR Part 91

10 Aircraft, Airmen, Air carriers, Air transportation,
11 Aircraft, Airworthiness directives and standards, Aviation
12 safety, Reporting and recordkeeping requirements, Safety.

13 14 CFR Part 119

14 Administrative practice and procedures, Air carriers,
15 Air transportation, Air taxis, Aircraft, Aviation safety,
16 Charter flights, Commuter operations, Reporting and
17 recordkeeping requirements.

18 14 CFR Part 121

19 Air carriers, Air transportation, Aircraft,
20 Airworthiness directives and standards, Aviation safety,
21 Reporting and recordkeeping requirements, Safety.

22 14 CFR Part 125

23 Air transportation, Aircraft, Airplanes, Airworthiness,
24 Aviation safety, Reporting and recordkeeping requirements,
25 Safety.

1 14 CFR Part 129

2 Air carrier, Aircraft, Airworthiness, Aviation safety,
3 Reporting and recordkeeping requirements, Safety.

4 14 CFR Part 135

5 Air carriers, Air taxi, Air transportation, Aircraft,
6 Airworthiness, Aviation safety, Reporting and recordkeeping
7 requirements, Safety, Transportation.

8 14 CFR Part 145

9 Air carriers, Air transportation, Aircraft,
10 Airworthiness, Aviation safety, Reporting and recordkeeping
11 requirements, Safety.

12

13 **THE PROPOSED AMENDMENT**

14 In consideration of the foregoing, the Federal Aviation
15 Administration proposes to amend parts 21, 43, 91, 119, 121,
16 125, 129, 135, and 145 of the Federal Aviation Regulations
17 (14 CFR parts 21, 43, 91, 119, 121, 125, 129, 135, and 145)
18 as follows:

19 **PART 21—CERTIFICATION PROCEDURES FOR PRODUCTS AND PARTS**

20 1. The authority citation for part 21 continues to
21 read as follows:

22 **Authority:** 42 U.S.C. 7572; 49 U.S.C. 106(g), 40105,
23 40113, 44701-44702, 44707, 44709, 44711, 44713, 44715,
24 45303.

25

26 2. Section 21.7 is added to read as follows:

1 **§ 21.7 Certification records.**

2 (a) After [1 year after the effective date of the
3 rule], any person who produces an aircraft, airframe,
4 aircraft engine propeller, appliance, component, or
5 part pursuant to a certificate, approval, or authorization
6 provided by the Administrator must maintain the following
7 information prior to the item's transfer-

8 (1) A record of the name, number, and serial number of
9 the aircraft, airframe, aircraft engine, propeller,
10 appliance, component, or part;

11 (2) A record of the weight and center of gravity for
12 each aircraft, and the conditions under which these values
13 were determined (including reference to any fixed ballast,
14 unusable fuel, or operating fluids);

15 (3) The current status of any applicable airworthiness
16 directives, including-

17 (i) The identification of the particular aircraft,
18 airframe, aircraft engine, propeller, appliance, component,
19 or part to which the airworthiness directive applies;

20 (ii) The airworthiness directive number and, if
21 applicable, its revision number, revision date, or amendment
22 number;

23 (iii) The date on which the action required by the
24 airworthiness directive was accomplished;

25 (iv) The total time-in-service of the item to which
26 the airworthiness directive applies when the required action

1 was accomplished, as expressed by each applicable standard,
2 if required by the airworthiness directive;

3 (v) The method of compliance, by reference to a
4 specific action described in the airworthiness directive, a
5 specific description of the work performed, or a description
6 of the approved alternative method of compliance; and

7 (vi) If recurring action is required by the
8 airworthiness directive, the interval to the next required
9 action, as expressed by each applicable standard.

10 (4) A record of the part number and serial number of
11 any life-limited part, and the part's total time-in-service
12 and specified life limit, as expressed by each applicable
13 standard;

14 (5) A description of any alterations or modifications
15 accomplished in accordance with a Supplemental Type
16 Certificate;

17 (6) The airworthiness certificate, if applicable; and

18 (7) Evidence indicating that the aircraft, airframe,
19 aircraft engine, propeller, appliance, component, or
20 part has been produced pursuant to a certificate, approval,
21 or authorization provided by the Administrator.

22 (b) Any person who produces an aircraft, airframe,
23 aircraft engine, propeller, appliance, component, or
24 part pursuant to a certificate, approval, or authorization
25 provided by the Administrator and subsequently transfers
26 that item after [1 year after the effective date of the

1 rule], must provide the transferee with the information
2 specified in paragraph (a) of this section.

3 (c) For the purposes of this section, the following
4 definitions apply:

5 (1) Applicable standard means an interval measured by
6 hours, cycles, calendar time, or another measuring parameter
7 approved by or acceptable to the Administrator.

8 (2) Component means any self-contained part, or any
9 combination of parts, subassemblies, or units that perform a
10 distinctive function necessary to operate a system.

11 (3) Life-limited part means any part for which a
12 retirement-life, service-life, or life limitation exists in
13 the type certificate for a product.

14 (4) Part means one piece, or two or more pieces that
15 are joined together and which are not normally subject to
16 disassembly without destruction of the designed use.

17 (5) Transfer means the conveyance of an aircraft,
18 airframe, aircraft engine, propeller, appliance, component,
19 or part.

20

21 **PART 43—MAINTENANCE, PREVENTIVE MAINTENANCE, REBUILDING, AND**
22 **ALTERATION**
23

24 3. The authority citation for part 43 continues to
25 read as follows:

26 **Authority:** 49 U.S.C. 106(g), 40113, 44701, 44703,
27 44705, 44707, 44711, 44713, 44717.

1

2 4. Section 43.1 is amended by revising the section
3 heading and paragraph (a)(3), and by adding paragraph (c) to
4 read as follows:

5 **§ 43.1 Applicability and definitions.**

6 (a) * * *

7 (3) Airframe, aircraft engine, propeller, appliance,
8 component, or part of those aircraft specified in
9 paragraphs (a)(1) and (a)(2) of this section.

10 * * * * *

11 (c) For the purposes of this part, the following
12 definitions apply:

13 (1) Applicable standard means an interval, measured by
14 hours, cycles, calendar time, or another measuring parameter
15 approved by or acceptable to the Administrator.

16 (2) Component means any self-contained part, or any
17 combination of parts, subassemblies, or units that perform a
18 distinctive function necessary to operate a system.

19 (3) Life-limited part means any part for which a
20 retirement-life, service-life, or life limitation exists in
21 the type certificate for a product.

22 (4) Part means one piece, or two or more pieces that
23 are joined together and which are not normally subject to
24 disassembly without destruction of the designed use.

25 (5) Signature means a form of identification used as a
26 means of attesting to the completion of an act and that

1 authenticates a record entry. A signature must be traceable
2 to the person making the entry and may be in handwritten,
3 electronic, or other form acceptable to the Administrator.

4 (6) Transfer means the conveyance of an aircraft,
5 airframe, aircraft engine, propeller, appliance, component,
6 or part.

7

8 5. Section 43.2 is amended by revising the
9 introductory language in paragraph (a) and (b) to read as
10 follows:

11 **§ 43.2 Records of overhaul and rebuilding.**

12 (a) No person may describe, in any required
13 maintenance entry or form, an aircraft, airframe, aircraft
14 engine, propeller, appliance, component, or part as being
15 overhauled unless--

16 * * *

17 (b) No person may describe, in any required
18 maintenance entry or form, an aircraft, airframe, aircraft
19 engine, propeller, appliance, component, or part as being
20 rebuilt unless it has been disassembled, cleaned, inspected,
21 repaired as necessary, reassembled, and tested to the same
22 tolerances and limits as a new item, using either new parts
23 or used parts that either conform to new part tolerances and
24 limits or to approved oversized or undersized dimensions.

25

1 6. Section 43.3 is amended by revising paragraph (a)
2 to read as follows:

3 **§ 43.3 Persons authorized to perform maintenance,**
4 **preventive maintenance, rebuilding, and alterations.**

5 (a) Except as provided in this section and § 43.17 of
6 this part, no person may maintain, rebuild, alter, or
7 perform preventive maintenance on an aircraft, airframe,
8 aircraft engine, propeller, appliance, component, or part to
9 which this part applies. Those items, the performance of
10 which is a major alteration, a major repair, or preventive
11 maintenance, are listed in appendix A.

12 * * * * *

13

14 7. Section 43.5 is amended by revising the
15 introductory paragraph to read as follows:

16 **§ 43.5 Approval for return to service after maintenance,**
17 **preventive maintenance, rebuilding, or alteration.**
18

19 No person may approve for return to service any
20 aircraft, airframe, aircraft engine, propeller, appliance,
21 component, or part that has undergone maintenance,
22 preventive maintenance, rebuilding, or alteration unless—

23 * * * * *

24

1 8. Section 43.7 is amended by revising the section
2 heading and paragraphs (a) through (e) to read as follows:

3 **§ 43.7 Persons authorized to approve aircraft, airframes,**
4 **aircraft engines, propellers, appliances, components, or**
5 **parts for return to service after maintenance, preventive**
6 **maintenance, rebuilding, or alteration.**

7 (a) Except as provided in this section and § 43.17 of
8 this part, no person, other than the Administrator, may
9 approve an aircraft, airframe, aircraft engine, propeller,
10 appliance, component, or part for return to service after it
11 has undergone maintenance, preventive maintenance,
12 rebuilding, or alteration.

13 (b) The holder of a mechanic certificate or an
14 inspection authorization may approve an aircraft, airframe,
15 aircraft engine, propeller, appliance, component, or
16 part for return to service as provided in part 65 of this
17 chapter.

18 (c) The holder of a repair station certificate may
19 approve an aircraft, airframe, aircraft engine, propeller,
20 appliance, component, or part for return to service as
21 provided in part 145 of this chapter.

22 (d) A manufacturer may approve for return to service
23 any aircraft, airframe, aircraft engine, propeller,
24 appliance, component, or part on which that manufacturer has
25 worked under § 43.3(j) of this part. However, except for
26 minor repairs and minor alterations, the work must have been
27 done in accordance with approved technical data.

1 (e) The holder of an air carrier operating
2 certificate, or an operating certificate issued under
3 part 119, 121, or 135, may approve an aircraft, airframe,
4 aircraft engine, propeller, appliance, component, or
5 part for return to service as provided in part 121 or
6 part 135 of this chapter, as applicable.

7 * * * * *

8

9 9. Section 43.9 is revised to read as follows:

10

11 **§ 43.9 Content of maintenance, preventive maintenance,**
12 **rebuilding, and alteration records (except inspections).**
13

14 (a) Maintenance record entries. Except as provided in
15 paragraph (c) of this section, each person who maintains,
16 performs preventive maintenance on, rebuilds, or alters an
17 aircraft, airframe, aircraft engine, propeller, appliance,
18 component, or part must make in the maintenance record of
19 that equipment, an entry, in English or retrievable in the
20 English language, and in a manner acceptable to the
21 Administrator, that contains-

22 (1) The name of the person who performed the
23 maintenance, preventive maintenance, rebuilding, or
24 alteration;

25 (2) A description of the work performed, to include,
26 as applicable, a description of-

1 (i) Compliance with an airworthiness directive,
2 including-

3 (A) The airworthiness directive number and, if
4 applicable, its revision number, revision date, or amendment
5 number; and

6 (B) The method of compliance, by reference to a
7 specific action described in the airworthiness directive, a
8 specific description of the work performed, or a description
9 of an approved alternative method of compliance;

10 (ii) The performance of a major repair, including a
11 reference to approved technical data or technical data
12 developed under SFAR No. 36;

13 (iii) The performance of a major alteration, including
14 a reference to approved technical data used in completing
15 the major alteration;

16 (iv) The performance of an overhaul;

17 (v) The installation of a life-limited part, including
18 the part's total time-in-service as expressed by each
19 applicable standard;

20 (vi) The accomplishment of a task in a maintenance
21 program; and

22 (vii) The performance of actions specified in the
23 Airworthiness Limitations section of a manufacturer's
24 maintenance manual or Instructions for Continued
25 Airworthiness.

26 (3) The date the work was completed;

1 (4) Work order number(s), if applicable;

2 (5) For any appliance, component, or part on which
3 work is performed, the name, number, and serial number, as
4 applicable, of the appliance, component, or part correlating
5 to the manufacturer's appliance, component, or part name,
6 number, and serial number; and

7 (6) If the work performed on the aircraft, airframe,
8 aircraft engine, propeller, appliance, component, or
9 part has been performed satisfactorily, the signature,
10 certificate number, and kind of certificate held by the
11 person approving the work or other positive identification
12 of the person approving the work that complies with the
13 provisions of a certificate holder's manual. The signature,
14 or other positive identification that complies with the
15 provisions of a certificate holder's manual, constitutes the
16 approval for return to service based only on the work
17 performed.

18 (b) If the work performed constitutes a major repair
19 or major alteration, the person performing the maintenance,
20 preventive maintenance, rebuilding, or alteration must
21 comply with appendix B of this part.

22 (c) This section does not apply to persons performing
23 inspections in accordance with part 91, 121, 125, 129,
24 or 135 of this chapter.

25

1 10. Section 43.11 is amended by revising the section
2 heading, the introductory text of paragraph (a), and
3 paragraphs (a)(3), (a)(7), and (b) to read as follows:

4 **§ 43.11 Content, form, and disposition of records for**
5 **inspections conducted under parts 91, 121, 125, 129, and 135**
6 **of this chapter.**

7 (a) Maintenance record entries. A person approving or
8 disapproving for return to service an aircraft, airframe,
9 aircraft engine, propeller, appliance, component, or
10 part after any inspection performed in accordance with
11 part 91, 121, 125, 129, or 135 of this chapter must make in
12 the maintenance record of that equipment, an entry, in
13 English or retrievable in the English language, that
14 contains the following information:

15 * * * * *

16 (3) The signature, certificate number, and kind of
17 certificate that is held by the person approving or
18 disapproving for return to service the aircraft, airframe,
19 aircraft engine, propeller, appliance, component, part, or
20 portions thereof, or other positive identification of the
21 person that complies with the provisions of a certificate
22 holder's manual.

23 * * * * *

24 (7) If an inspection is conducted under an inspection
25 program required by part 91, 121, 125, 129, or 135 of this
26 chapter, the entry must identify the inspection program and
27 the segment of the inspection program accomplished, and must

1 state that the inspection was performed in accordance with
2 the inspections and procedures for that particular program.

3 (b) Listing of discrepancies and placards. If the
4 person performing any inspection required by part 91, 121,
5 125, 129, or 135 of this chapter finds that the aircraft is
6 not airworthy or does not meet the applicable type
7 certificate data, airworthiness directives, or other
8 approved data upon which its airworthiness depends, that
9 person must give the owner or operator a signed and dated
10 list of those discrepancies. For items permitted to be
11 inoperative under § 91.213 of this chapter, the person
12 performing the inspection must place a placard that meets
13 the aircraft's airworthiness certification regulations on
14 each inoperative instrument and on the cockpit control of
15 each item of inoperative equipment, mark it "Inoperative,"
16 and add the items to the signed and dated list of
17 discrepancies that must be given to the owner or operator.

18

19 11. Section 43.15 is amended by revising the
20 introductory text of paragraph (a) and paragraph (a)(2) to
21 read as follows:

22 **§ 43.15 Additional performance rules for inspections.**

23 (a) General. Each person performing an inspection
24 required by part 91, 121, 125, 129, or 135 of this chapter
25 must—

26 * * *

1 (2) If the inspection is required by part 121,
2 125, 129, or 135, or § 91.409(e) of this chapter, perform
3 the inspection in accordance with the instructions and
4 procedures set forth in the inspection program for the
5 aircraft being inspected.

6 * * * * *

7

8 12. Section 43.16 is revised to read as follows:

9 **§ 43.16 Airworthiness limitations.**

10 Each person performing an inspection, or other
11 maintenance specified in an Airworthiness Limitations
12 section of a manufacturer's maintenance manual or
13 Instructions for Continued Airworthiness, must perform the
14 inspection or other maintenance in accordance with that
15 section, or in accordance with Operations Specifications
16 approved by the Administrator under part 121, 125, 129,
17 or 135 of this chapter, or an inspection program selected
18 under § 91.409(e) of this chapter.

19

20 13. Part 43, appendix B, is revised to read as
21 follows:

22 **APPENDIX B TO PART 43—RECORDING OF MAJOR REPAIRS AND MAJOR**
23 **ALTERATIONS**

24 (a) Except as provided in paragraphs (b), (c), and (d)
25 of this appendix, each person performing a major repair or
26 major alteration must—

27 (1) Execute FAA Form 337 in duplicate;

1 (2) Give a signed copy of that form to the owner or
2 operator of the aircraft, airframe, aircraft engine,
3 propeller, appliance, component, or part on which the major
4 repair or major alteration was performed; and

5 (3) Forward a copy of that form to the local Flight
6 Standards District Office—

7 (i) Within 48 hours after the aircraft, airframe,
8 aircraft engine, propeller, appliance, component, or part is
9 approved for return to service, or

10 (ii) For a major repair or major alteration performed
11 on an aircraft engine, propeller, appliance, component or
12 part, within 48 hours after the aircraft engine, propeller,
13 appliance, component, or part has been installed on an
14 aircraft.

15 (b) For major repairs made in accordance with a manual
16 or specifications approved by or acceptable to the
17 Administrator, a certificated repair station may, in place
18 of the requirements of paragraph (a), use the customer's
19 work order to record the major repair.

20 (1) The customer's work order must include—

21 (i) The identity of the aircraft, airframe, aircraft
22 engine, propeller, appliance, component, or part, as
23 applicable;

24 (ii) In the case of an aircraft, the make, model,
25 serial number, registration marks, and location of the
26 repaired area;

1 (iii) In the case of an airframe, aircraft engine,
2 propeller, appliance, component, or part, its name, the
3 manufacturer's name, the model, and serial numbers (if any);
4 and

5 (iv) The following or a similarly worded statement:
6 "The aircraft, airframe, aircraft engine, propeller,
7 appliance, component, or part identified above was repaired
8 and inspected in accordance with current regulations of the
9 Federal Aviation Administration and is approved for return
10 to service with respect to the work performed.

11 Pertinent details of the repair are on file at this
12 repair station under Order No. _____.

13 Date _____

14 Signed _____

15 (For signature of authorized representative)

16 _____

17 (Repair station name) (Certificate No.)

18 _____

19 (Address)".

20 (2) The owner or operator must be given a signed copy
21 of the work order, and the repair station must retain a
22 duplicate copy for at least 2 years from the date of
23 approval for return to service of the aircraft, airframe,
24 aircraft engine, propeller, appliance, component, or part.

25 (c) For a major repair or major alteration made by a
26 person authorized by § 43.17 of this part, the person who

1 performs the major repair or major alteration must execute
2 an FAA Form 337 or a Transport Canada Conformity Certificate
3 (Transport Canada Form 24-0045). The person who performs
4 the major repair or major alteration must give a completed
5 copy of that form to the owner or operator and forward a
6 second completed copy of the form to the Federal Aviation
7 Administration, Aircraft Registration Branch, Post Office
8 Box 25082, Oklahoma City, OK 73125, within 48 hours after
9 the work is inspected.

10 (d) For a fuel tank installed within the passenger
11 compartment or a baggage compartment, the person who
12 performs the work must execute an FAA Form 337 in
13 triplicate; however, if the work is performed under § 43.17
14 of this part, a Transport Canada Conformity Certificate
15 (Transport Canada Form 24-0045) may be used. One (1) copy
16 of the form must be placed aboard the aircraft as specified
17 in § 91.417 of this chapter. The remaining forms must be
18 distributed as required by paragraphs (a)(2) and (a)(3), or
19 by paragraph (c) of this appendix, as appropriate.

20

21 **PART 91—GENERAL OPERATING AND FLIGHT RULES**

22 14. The authority citation for part 91 continues to
23 read as follows:

24 **Authority:** 49 U.S.C. 106(g), 40103, 40113, 40120,
25 44101, 44111, 44701, 44709, 44711, 44712, 44715, 44716,

1 44717, 44722, 46306, 46315, 46316, 46502, 46504,
2 46506-46507, 47122, 47508, 47528-47531.

3

4 15. Section 91.2 is added to read as follows:

5 **§ 91.2 Definitions.**

6 For the purposes of this part, the following
7 definitions apply:

8 (a) Applicable standard means an interval, measured by
9 hours, cycles, calendar time, or another measuring
10 parameter, approved by or acceptable to the Administrator.

11 (b) Component means any self-contained part, or any
12 combination of parts, subassemblies, or units that perform a
13 distinctive function necessary to operate a system.

14 (c) Life-limited part means any part for which a
15 retirement-life, service-life, or life limitation exists in
16 the type certificate for a product.

17 (d) Part means one piece, or two or more pieces that
18 are joined together and that are not normally subject to
19 disassembly without destruction of the designed use.

20 (e) Signature means a form of identification used as a
21 means of attesting to the completion of an act and that
22 authenticates a record entry. A signature must be traceable
23 to the person making the entry and may be in handwritten,
24 electronic, or other form acceptable to the Administrator.

1 (f) Transfer means the conveyance of an aircraft,
2 airframe, aircraft engine, propeller, appliance, component,
3 or part.

4

5 16. Section 91.203 is amended by revising
6 paragraph (c) to read as follows:

7 **§ 91.203 Civil aircraft: Certifications required.**

8 * * * * *

9 (c) No person may operate an aircraft with a fuel tank
10 installed within the passenger compartment or a baggage
11 compartment unless the installation was accomplished
12 pursuant to part 21 or part 43 of this chapter and, for
13 those fuel tanks installed pursuant to part 43, a copy of
14 FAA Form 337 or a Transport Canada Conformity Certificate
15 (Transport Canada Form 24-0045), which authorizes the
16 installation, is aboard the aircraft.

17 * * * * *

18

19 17. Section 91.401 is amended by revising
20 paragraph (b) to read as follows:

21 **§ 91.401 Applicability.**

22 * * * * *

23 (b) Sections 91.207(d), 91.405, 91.409, 91.411,
24 and 91.413 of this subpart do not apply to an aircraft
25 maintained in accordance with a Continuous Airworthiness

1 Maintenance Program, as provided in part 121, 125, or 129,
2 or § 135.411(a)(2) of this chapter.

3 * * * * *

4

5 18. Section 91.417 is revised to read as follows:

6 **§ 91.417 Maintenance records.**

7 (a) Each owner or operator of an aircraft, airframe,
8 aircraft engine, propeller, appliance, component, or
9 part must maintain—

10 (1) Records of the maintenance, preventive
11 maintenance, and alteration for each aircraft, airframe,
12 aircraft engine, propeller, appliance, component, or
13 part made in accordance with § 43.9 of this chapter;

14 (2) Records of 100-hour, annual, progressive, and
15 other required or approved inspections or inspection program
16 tasks, for each aircraft, airframe, aircraft engine,
17 propeller, appliance, component, or part made in accordance
18 with § 43.11 of this chapter;

19 (3) A record of the weight and balance of each
20 aircraft;

21 (4) A record of the total time-in-service of the
22 airframe, aircraft engine, and propeller, as expressed by
23 each applicable standard;

24 (5) The current status of each life-limited part,
25 including—

1 (i) A record of the total time-in-service of the part,
2 as expressed by each applicable standard; and

3 (ii) The specified life limit, as expressed by each
4 applicable standard.

5 (6) An in-service history of each life-limited
6 part for the period after [1 year after the effective date
7 of the rule], including-

8 (i) A record of each removal and installation of a
9 life-limited part, as expressed in each applicable standard;

10 (ii) A record of any action that has altered the
11 part's life limit or has changed the parameters of the life
12 limit.

13 (7) The current overhaul status for each airframe,
14 aircraft engine, propeller, appliance, component, and
15 part that is required to be overhauled on a specified time
16 basis under the maintenance or inspection program used by
17 the owner or operator, including-

18 (i) The overhaul interval, as expressed by each
19 applicable standard; and

20 (ii) When the last overhaul was performed, as
21 expressed by each applicable standard.

22 (8) The current inspection status for each aircraft,
23 airframe, aircraft engine, propeller, appliance, component,
24 or part that is required to be inspected under the
25 maintenance or inspection program used by the owner or
26 operator, including-

1 (i) The inspection interval, as expressed by each
2 applicable standard; and

3 (ii) When the last inspection was performed, as
4 expressed by each applicable standard.

5 (9) The current status of applicable airworthiness
6 directives for each aircraft, airframe, aircraft engine,
7 propeller, appliance, component, or part, including—

8 (i) The identification of the particular airframe,
9 aircraft engine, propeller, appliance, component, or part to
10 which the airworthiness directive applies;

11 (ii) The airworthiness directive number and, if
12 applicable, its revision number, revision date, or amendment
13 number;

14 (iii) The date on which the required action was last
15 accomplished;

16 (iv) The total time-in-service, as expressed by each
17 applicable standard, if required by the airworthiness
18 directive;

19 (v) The method of compliance, by reference to a
20 specific action described in the airworthiness directive, a
21 specific description of the work performed, or a description
22 of an approved alternative method of compliance with a copy
23 of the FAA approval; and

24 (vi) If recurring action is required by the
25 airworthiness directive, the interval to the next required
26 action, as expressed by each applicable standard.

1 (10) Records for each major alteration to each
2 aircraft, airframe, aircraft engine, propeller, appliance,
3 component, or part including—
4 (i) The identification of the particular aircraft,
5 airframe, aircraft engine, propeller, appliance, component,
6 or part to which the major alteration applies;
7 (ii) The date on which the major alteration was
8 accomplished;
9 (iii) The method of accomplishment; and
10 (iv) References to approved technical data or, in the
11 case of experimental aircraft not previously issued another
12 type of airworthiness certificate, technical data used as a
13 basis for certification.
14 (11) Records for each major repair to each aircraft,
15 airframe, aircraft engine, propeller, appliance, component,
16 or part, including—
17 (i) The identification of the particular aircraft,
18 airframe, aircraft engine, propeller, appliance, component,
19 or part to which the major repair applies;
20 (ii) The date on which the major repair was
21 accomplished;
22 (iii) The method of accomplishment; and
23 (iv) References to approved technical data, technical
24 data developed under SFAR No. 36, or, in the case of
25 experimental aircraft not previously issued another type of

1 airworthiness certificate, technical data used as a basis
2 for certification.

3 (12) Evidence indicating that the aircraft, airframe,
4 aircraft engine, propeller, appliance, component, or
5 part has been produced pursuant to a certificate, approval,
6 or authorization provided by the Administrator.

7 (b) Each owner or operator must retain-

8 (1) The records specified in paragraph (a)(1) of this
9 section for 1 year, until the work is superseded or
10 repeated, or in accordance with a certificate holder's
11 manual;

12 (2) The records specified in paragraph (a)(2) of this
13 section until the work is superseded or repeated;

14 (3) The records specified in paragraph (a)(3) of this
15 section in English or retrievable in the English language
16 until superseded; and

17 (4) The records specified in paragraphs (a)(4)
18 through (a)(12) of this section in English or retrievable in
19 the English language, until the aircraft, airframe, aircraft
20 engine, propeller, appliance, component, or part is
21 transferred.

22 (c) Each owner or operator who receives a list of
23 discrepancies furnished under § 43.11(b) of this chapter
24 must retain a list of these discrepancies until the
25 discrepancies are repaired and the aircraft is approved for

1 return to service, or until the aircraft and the list of
2 discrepancies is transferred.

3 (d) Each certificate holder under part 119, 121, 125,
4 or 135 of this chapter that is required to prepare an
5 airworthiness release or equivalent log entry must retain
6 the records necessary to show that all requirements for the
7 issuance of the airworthiness release or equivalent log
8 entry have been met. These records must be retained for
9 1 year, or until the work is repeated or superseded by other
10 work of equal scope.

11 (e) Each owner or operator that is required to set
12 forth in its manual a system acceptable to the Administrator
13 to obtain, store, and retrieve required maintenance records
14 must use that system to meet the provisions of this section.

15 (f) The owner or operator must make all maintenance
16 records required to be kept by this section available for
17 inspection by the Administrator or any authorized
18 representative of the National Transportation Safety Board
19 (NTSB). Upon request of the Administrator or any authorized
20 representative of the NTSB, the owner or operator must
21 provide the requesting official with a copy of any
22 maintenance record required to be retained by this section.
23 The record must be provided in English, either in paper or
24 other media acceptable to the requester. An owner or
25 operator also must present FAA Form 337 or a Transport
26 Canada Conformity Certificate (Transport Canada Form

1 24-0045) described in paragraph (g) of this section for
2 inspection upon request of any law enforcement officer.

3 (g) When a fuel tank is installed within the passenger
4 compartment or a baggage compartment pursuant to part 43 of
5 this chapter, the owner or operator must keep a copy of
6 FAA Form 337 or a Transport Canada Conformity Certificate
7 (Transport Canada Form 24-0045) for the installation aboard
8 the modified aircraft.

9
10 19. Section 91.419 is revised to read as follows:

11 **§ 91.419 Transfer of maintenance records.**

12 (a) Except as provided in paragraph (c) of this
13 section, each owner or operator who transfers an aircraft,
14 airframe, aircraft engine, propeller, appliance, component,
15 or part that is approved for return to service must—

16 (1) Concurrently transfer the records specified in
17 § 91.417(a), (b), (c), (d), and (g) of this part to the
18 receiving owner or operator; and

19 (2) Certify the authenticity of the information
20 contained in the records that are transferred.

21 (b) Except as provided in paragraph (c) of this
22 section, each owner or operator who transfers an aircraft,
23 airframe, aircraft engine, propeller, appliance, component,
24 or part that is not approved for return to service must
25 provide the transferee with a statement in written,
26 electronic, or other form acceptable to the Administrator

1 indicating that the aircraft, airframe, aircraft engine,
2 propeller, appliance, component, or part is not approved for
3 return to service and the basis for that determination.

4 (c) Each owner or operator who transfers an aircraft,
5 airframe, aircraft engine, propeller, appliance, component,
6 or part for the purpose of maintenance, preventive
7 maintenance, rebuilding, or alteration must concurrently
8 transfer information sufficient to ensure completion of the
9 work to be performed.

10

11 20. Section 91.420 is added to read as follows:

12

13 **§ 91.420 Receipt of certification and maintenance records.**

14 (a) Except as provided in paragraph (c) of this
15 section, each owner or operator that receives from a
16 manufacturer an aircraft, airframe, aircraft engine,
17 propeller, appliance, component, or part produced after
18 *[1 year after the effective date of the rule]* and pursuant
19 to a certificate, approval, or authorization provided by the
20 Administrator must, at the time of receipt, obtain the
21 records listed in § 21.7 of this chapter or equivalent
22 information contained in records that meet the requirements
23 of § 91.417 of this chapter.

24 (b) Except as provided in paragraph (c) of this
25 section, each owner or operator that receives an aircraft,
26 airframe, aircraft engine, propeller, appliance, component,

1 or part must obtain the records listed in § 91.417(a), (b),
2 (c), (d), and (g) of this part from the preceding owner or
3 operator at the time of the transfer.

4 (c) The receiving owner or operator may permit the
5 preceding owner or operator to keep physical custody of the
6 records specified in § 91.417(a), (b), (c), and (d) of this
7 part. However, the preceding owner or operator's custody of
8 such records does not relieve the receiving owner or
9 operator of the responsibility under § 91.417(f) of this
10 part to make the records available for inspection by the
11 Administrator or any authorized representative of the
12 National Transportation Safety Board.

13

14 21. Section 91.423 is added to read as follows:

15 **§ 91.423 Electronic recordkeeping systems.**

16 (a) An owner or operator using an electronic
17 recordkeeping system for the retention or transfer of
18 maintenance records required by §§ 91.417 and 91.419 of this
19 part must ensure that the system—

20 (1) Provides the user with timely, reliable, and
21 accurate access to those maintenance records;

22 (2) Contains audit procedures that ensure the accuracy
23 of any maintenance record, maintenance record entry, or
24 other information entered into the system;

25 (3) Contains a security system that—

1 (i) Protects the electronic recordkeeping system from
2 any unauthorized use;

3 (ii) Monitors user access; and

4 (iii) Records and reports any attempted unauthorized
5 access.

6 (4) Provides a record of any addition, change, or
7 deletion of any maintenance record, maintenance record
8 entry, or other information contained in the system;

9 (5) Provides for the backup of any maintenance record,
10 maintenance record entry, or other information entered into
11 the system; and

12 (6) Provides a means to certify the authenticity of
13 maintenance records, maintenance record entries, or other
14 information entered into the electronic recordkeeping.
15 system.

16 (b) Each owner or operator must, upon request, make
17 the maintenance records contained in the electronic
18 recordkeeping system specified in paragraph (a) of this
19 section available to the Administrator or any authorized
20 representative of the National Transportation Safety Board.

21 (c) An owner or operator using an electronic
22 recordkeeping system that complies with the requirements of
23 this section may transfer the information contained in any
24 received maintenance record or maintenance record entry to
25 its electronic recordkeeping system and use the resulting

1 electronic record to satisfy the record retention and
2 transfer requirements of §§ 91.417 and 91.419 of this part.

3 (d) An owner or operator using an electronic
4 recordkeeping system for the retention or transfer of
5 maintenance records required by §§ 91.417 and 91.419 of this
6 part must possess a manual, acceptable to the Administrator,
7 that describes the operation and use of the electronic
8 recordkeeping system. This manual must include—

9 (1) A description of the system;

10 (2) Security provisions and a listing of those persons
11 with the authority to provide individuals access to the
12 system;

13 (3) Instructions for using commands involved in data
14 entry, data processing, data retrieval, and report
15 generation; and

16 (4) A description of individual responsibilities
17 necessary to maintain system security.

18 (e) Those portions of the manual specified in
19 paragraphs (d)(3) and (d)(4) of this section must be made
20 available to every individual with authorized access to the
21 electronic recordkeeping system.

22

23 22. Section 91.425 is added to read as follows:

24 **§ 91.425 Maintenance records: Falsification, reproduction,**
25 **or alteration.**

26 (a) No person may make or cause to be made—

1 (1) Any fraudulent or intentionally false entry in any
2 document, form, report, or record required to be made, kept,
3 or used to show compliance with any requirement under this
4 subpart;

5 (2) Any reproduction, for fraudulent purpose, of any
6 document, form, report, or record required to be made, kept,
7 or used to show compliance with any requirement under this
8 subpart; or

9 (3) Any alteration, for fraudulent purpose, of any
10 document, form, report, or record required to be made, kept,
11 or used to show compliance with any requirement under this
12 subpart.

13 (b) The commission by any person of an act prohibited
14 under paragraph (a) of this section is a basis for
15 suspending or revoking any applicable airman, operator, or
16 air agency certificate held by that person.

17

18 **PART 119 CERTIFICATION: AIR CARRIERS AND COMMERCIAL**
19 **OPERATORS**

20 23. The authority citation for part 119 continues to
21 read as follows:

22 **Authority:** 49 U.S.C. 106(g), 1153, 40101, 40102,
23 40103, 40113, 44105, 44106, 44111, 44701-44717, 44722,
24 44901, 44903, 44904, 44906, 44912, 44914, 44936, 44938,
25 46103, 46105.

26

1 24. Section 119.3 is amended by adding the definition
2 of Signature between the definitions of Scheduled operation
3 and Supplemental operation to read as follows:

4 **§ 119.3 Definitions.**

5 * * * * *

6 Signature means a form of identification used as a
7 means of attesting to the completion of an act and that
8 authenticates a record entry. A signature must be traceable
9 to the person making the entry and may be in handwritten,
10 electronic, or other form acceptable to the Administrator.

11 * * * * *

12 **PART 121—OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND**
13 **SUPPLEMENTAL OPERATIONS**
14

15 25. The authority citation for part 121 continues to
16 read as follows:

17 **Authority:** 49 U.S.C. 106(g), 40113, 40119, 44101,
18 44701-44702, 44705, 44709-44711, 44713, 44716-44717, 44722,
19 44901, 44903-44904, 44912, 46105.

20

21 26. Section 121.133 is amended by revising
22 paragraph (b) to read as follows:

23 **§ 121.133 Preparation.**

24 * * * * *

25 (b) For the purposes of this subpart, the certificate
26 holder must prepare that part of its manual containing
27 maintenance information and instructions in whole, or in

1 part, in printed form or other form acceptable to the
2 Administrator that is in English or retrievable in the
3 English language.

4

5 27. Section 121.137 is amended by revising
6 paragraph (c) to read as follows:

7 **§ 121.137 Distribution and availability.**

8

9 * * * * *

10 (c) For the purpose of complying with paragraph (a) of
11 this section, a certificate holder may furnish the persons
12 listed therein with the maintenance part of its manual by
13 making it available in printed form or other form acceptable
14 to the Administrator that is in English or is retrievable in
15 the English language. If the certificate holder makes the
16 maintenance part of the manual available in other than
17 printed form, it must ensure there is a compatible reading
18 device available to those persons that provides a legible
19 image of the maintenance information and instructions or a
20 system that is able to retrieve the maintenance information
21 and instructions in English.

22

23 28. Section 121.139 is amended by revising
24 paragraph (a) to read as follows:

1 **§ 121.139 Requirement for manual aboard aircraft:**
2 **Supplemental operations.**
3

4 (a) Except as provided in paragraph (b) of this
5 section, each certificate holder conducting supplemental
6 operations must have access to appropriate parts of the
7 manual for each aircraft when away from the principal base.
8 The appropriate parts must be available for use by ground or
9 flight personnel. If a supplemental air carrier or
10 commercial operator carries aboard an aircraft all or any
11 portion of the maintenance part of its manual in other than
12 printed form, it must have access to a compatible reading
13 device that produces a legible image of the maintenance
14 information and instructions or a system that is able to
15 retrieve the maintenance information and instructions in
16 English.

17 * * * * *

18 29. Section 121.369 is amended by adding
19 paragraph (b)(10) and revising paragraph (c) to read as
20 follows:

21 **§ 121.369 Manual requirements.**

22 * * * * *

23 (b) * * *

24 (10) Procedures to ensure that the records and record
25 entries transferred with an aircraft, airframe, aircraft
26 engine, propeller, appliance, component, or part that the

1 certificate holder receives are reviewed for compliance with
2 the provisions of § 91.420 of this chapter.

3 (c) The certificate holder must set forth in its
4 manual a system acceptable to the Administrator to obtain,
5 store, and retrieve required maintenance records. The
6 system must be protected from unauthorized use and access.

7 30. Section 121.380 is removed and reserved.

8 **§ 121.380 [Reserved]**

9

10 31. Section 121.380a is removed and reserved.

11 **§ 121.380a [Reserved]**

12 **PART 125—CERTIFICATION AND OPERATIONS: AIRPLANES HAVING A**
13 **SEATING CAPACITY OF 20 OR MORE PASSENGERS OR A MAXIMUM**
14 **PAYLOAD CAPACITY OF 6,000 POUNDS OR MORE**

15 32. The authority citation for part 125 continues to
16 read as follows:

17 **Authority:** 49 U.S.C. 106(g), 40113, 44701-44702,
18 44705, 44710-44711, 44713, 44716-44717, 44722.

19 33. Section 125.71 is amended by revising
20 paragraphs (f) and (g) to read as follows:

21 **§ 125.71 Preparation.**

22 * * * * *

23 (f) For the purpose of complying with paragraph (d) of
24 this section, a certificate holder may furnish the persons
25 listed therein with the maintenance part of its manual by
26 making it available in printed form or other form acceptable
27 to the Administrator that is in English or is retrievable in

1 the English language. If the certificate holder makes the
2 maintenance part of the manual available in other than
3 printed form, it must ensure that there is a compatible
4 reading device available to those persons that provides a
5 legible image of the maintenance information and
6 instructions or a system that is able to retrieve the
7 maintenance information and instructions in English.

8 (g) Each certificate holder must have access to
9 appropriate parts of the manual for each airplane when away
10 from the principal operations base. The appropriate parts
11 must be available for use by ground or flight personnel. If
12 a certificate holder carries aboard an airplane all or any
13 portion of the maintenance part of its manual in other than
14 printed form, it must have access to a compatible reading
15 device that produces a legible image of the maintenance
16 information and instructions or a system that is able to
17 retrieve the maintenance information and instructions in
18 English.

19

20 34. Section 125.249 is amended by revising the section
21 heading, revising paragraphs (a)(3)(vi), (a)(3)(vii), and
22 (b), and adding paragraphs (a)(3)(viii) and (c) to read as
23 follows:

24 **§ 125.249 Manual requirements.**

25 (a) * * *

26 (3) * * *

1 (vi) Instructions to prevent each person who performs
2 any item of work from performing any required inspection of
3 that work;

4 (vii) Procedures to ensure that work interruptions do
5 not adversely affect required inspections and to ensure that
6 required inspections are properly completed before the
7 airplane is returned to service; and

8 (viii) Procedures to ensure that the records and
9 record entries transferred with an aircraft, airframe,
10 aircraft engine, propeller, appliance, component, or
11 part that the certificate holder receives are reviewed for
12 compliance with the provisions of § 91.420 of this chapter,
13 if applicable.

14 (b) The certificate holder must set forth in its
15 manual a system acceptable to the Administrator to obtain,
16 store, and retrieve required maintenance records. The
17 system must be protected from unauthorized use and access.

18 (c) For the purposes of this subpart, the certificate
19 holder must prepare that part of its manual containing
20 maintenance information and instructions, in whole or in
21 part, in printed form or other form acceptable to the
22 Administrator that is in English or is retrievable in the
23 English language.

1

2 **PART 129—OPERATIONS: FOREIGN AIR CARRIERS AND FOREIGN**
3 **OPERATORS OF U.S.-REGISTERED AIRCRAFT ENGAGED IN COMMON**
4 **CARRIAGE**

5 35. The authority citation for part 129 continues to
6 read as follows:

7 **Authority:** 49 U.S.C. 106(g), 40104-40105, 40113,
8 40119, 44701-44702, 44712, 44716-44717, 44722, 44901-44904,
9 44906.

10

11 36. Section 129.14 is revised by amending the title
12 and paragraph (a) to read as follows:

13 **§ 129.14 Maintenance program, maintenance recordkeeping,**
14 **and minimum equipment list requirements for U.S.-registered**
15 **aircraft.**

16 (a) Each foreign air carrier and each foreign person
17 operating a U.S.-registered aircraft within or outside the
18 United States in common carriage must ensure that—

19 (1) Each aircraft is maintained in accordance with a
20 program approved by the Administrator;

21 (2) The records and record entries transferred with an
22 aircraft, airframe, aircraft engine, propeller, appliance,
23 component, or part that the operator receives are reviewed
24 for compliance with the provisions of § 91.420 of this
25 chapter; and

26 (3) The operator possesses a system acceptable to the
27 Administrator to obtain, store, and retrieve required

1 maintenance records. The system must be protected from
2 unauthorized use and access.

3 * * * * *

4

5 **PART 135—OPERATING REQUIREMENTS: COMMUTER AND ON-DEMAND**
6 **OPERATIONS**

7 37. The authority citation for part 135 continues to
8 read as follows:

9 **Authority:** 49 U.S.C. 106(g), 40113, 44701-44702,
10 44705, 44709, 44711-44713, 44715-44717, 44722.

11

12 38. Section 135.21 is amended by revising
13 paragraphs (f) and (g) to read as follows:

14 **§ 135.21 Manual requirements.**

15 * * * * *

16 (f) For the purpose of complying with paragraph (d) of
17 this section, a certificate holder may furnish the persons
18 listed therein with the maintenance part of its manual by
19 making it available in printed form or other form acceptable
20 to the Administrator that is in English or is retrievable in
21 the English language. If the certificate holder makes the
22 maintenance part of the manual available in other than
23 printed form, it must ensure there is a compatible reading
24 device available to those persons that provides a legible
25 image of the maintenance information and instructions, or a
26 system that is able to retrieve the maintenance information
27 and instructions in English.

1 (g) Each certificate holder must have access to
2 appropriate parts of the manual for each aircraft when away
3 from the principal operations base. The appropriate parts
4 must be available for use by ground or flight personnel. If
5 a certificate holder carries aboard an aircraft all or any
6 portion of the maintenance part of its manual in other than
7 printed form, it must have access to a compatible reading
8 device that produces a legible image of the maintenance
9 information and instructions or is able to retrieve the
10 maintenance information and instructions in English.

11 39. Section 135.427 is amended by adding
12 paragraph (b)(10), revising paragraph (c), and adding
13 paragraph (d) to read as follows:

14 **§ 135.427 Manual requirements.**

15 * * * * *

16 (b) * * *

17 (10) Procedures to ensure that the records and record
18 entries transferred with an aircraft, airframe, aircraft
19 engine, propeller, appliance, component, or part that the
20 certificate holder receives are reviewed for compliance with
21 the provisions of § 91.420 of this chapter, if applicable.

22 (c) The certificate holder must set forth in its
23 manual a system acceptable to the Administrator to obtain,
24 store, and retrieve required maintenance records. The
25 system must be protected from unauthorized use and access.

1 (d) For the purposes of this subpart, the certificate
2 holder must prepare that part of its manual containing
3 maintenance information and instructions, in whole or in
4 part, in printed form or other form acceptable to the
5 Administrator that is in English or is retrievable in the
6 English language.

7
8 40. Section 135.439 is removed and reserved.

9 **§ 135.439 [Reserved]**

10

11 41. Section 135.441 is removed and reserved.

12 **§ 135.441 [Reserved]**

13 **PART 145—REPAIR STATIONS**

14 42. The authority citation for part 145 continues to
15 read as follows:

16 **Authority:** 49 U.S.C. 106(g), 40113, 44701-44702,
17 44707, 44717.

18

19 43. Section 145.65 is added to read as follows:

20 **§ 145.65 Electronic recordkeeping systems.**

21 (a) A repair station using an electronic recordkeeping
22 system for the retention or transfer of maintenance records
23 required by this chapter must ensure that the system—

24 (1) Provides the user with timely, reliable, and
25 accurate access to those maintenance records;

1 (2) Contains audit procedures that ensure the accuracy
2 of any maintenance record, maintenance record entry, or
3 other information entered into the system;

4 (3) Contains a security system that--

5 (i) Protects the electronic recordkeeping system from
6 any unauthorized use;

7 (ii) Monitors user access; and

8 (iii) Records and reports any attempted unauthorized
9 access.

10 (4) Provides a record of any addition, change, or
11 deletion of any maintenance record, maintenance record
12 entry, or other information contained in the system;

13 (5) Provides for the backup of any maintenance record,
14 maintenance record entry, or other information entered into
15 the system; and

16 (6) Provides a means to certify the authenticity of
17 the maintenance records, maintenance record entries, or
18 other information entered into the electronic recordkeeping
19 system.

20 (b) Each repair station must, upon request, make the
21 maintenance records contained in the electronic
22 recordkeeping system available to the Administrator or any
23 authorized representative of the National Transportation
24 Safety Board.

25 (c) A repair station using an electronic recordkeeping
26 system may transfer the information contained in any

1 received maintenance record or record entry to its
2 electronic recordkeeping system and use the resulting
3 electronic record to satisfy the record retention
4 requirements of this chapter, provided that the electronic
5 recordkeeping system complies with the requirements of this
6 section.

7 (d) A repair station using an electronic recordkeeping
8 system for the retention or transfer of maintenance records
9 required by this chapter must possess a manual, acceptable
10 to the Administrator, that describes the operation and use
11 of the electronic recordkeeping system. This manual must be
12 made available to every individual with access to the
13 electronic recordkeeping system. This manual must include—

14 (1) A description of the system;

15 (2) Security provisions and a listing of those persons
16 with the authority to provide individuals access to the
17 system;

18 (3) Instructions for using commands involved in data
19 entry, data processing, data retrieval, and report
20 generation; and

21 (4) A description of individual responsibilities
22 necessary to maintain system security.

23 (e) Those portions of the manual specified in
24 paragraphs (d)(3) and (d)(4) of this section must be made
25 available to every individual with authorized access to the
26 electronic recordkeeping system.

1

2 44. Section 145.67 is added to read as follows:

3 **§ 145.67 Transfer of maintenance records.**

4 (a) Except as specified in paragraph (b) of this
5 section, a repair station that transfers an aircraft,
6 airframe, aircraft engine, propeller, appliance, component,
7 or part that was not received from that owner or operator
8 under the provisions of § 91.419(c) of this chapter must—

9 (1) For an aircraft, airframe, aircraft engine,
10 propeller, appliance, component, or part that is approved
11 for return to service, concurrently transfer the records
12 specified in § 91.417(a), (b), (c), (d), and (g) of this
13 chapter to the receiving owner or operator;

14 (2) For an aircraft, airframe, aircraft engine,
15 propeller, appliance, component, or part that is not
16 approved for return to service, provide the transferee with
17 a statement in written, electronic, or other form acceptable
18 to the Administrator indicating that the aircraft, airframe,
19 aircraft engine, propeller, appliance, component, or
20 part has not been approved for return to service and the
21 basis for that determination; and

22 (3) Certify the authenticity of the information
23 contained in any records required to be transferred.

24 (b) A repair station that transfers an aircraft,
25 airframe, aircraft engine, propeller, appliance, component,
26 or part, for the purpose of maintenance, preventive

1 maintenance, or alteration, must concurrently transfer
2 information sufficient to ensure completion of the work to
3 be performed.
4

5 45. Section 145.69 is added to read as follows:

6 **§ 145.69 Receipt of certification and maintenance records.**

7 (a) Except as specified in paragraph (d) of this
8 section, a repair station that receives from a manufacturer
9 an aircraft, airframe, aircraft engine, propeller,
10 appliance, component, or part produced after [1 year after
11 the effective date of the rule] and pursuant to a
12 certificate, approval, or authorization provided by the
13 Administrator, must obtain, at the time of receipt, the
14 records listed in § 21.7 or equivalent information contained
15 in records that meet the requirements of § 91.417 of this
16 chapter.

17 (b) Except as specified in paragraph (d) of this
18 section, any repair station that receives an aircraft, or
19 any airframe, aircraft engine, propeller, appliance,
20 component, or part that is approved for return to service
21 must obtain the records specified in § 91.417(a), (b), (c),
22 (d), and (g) of this chapter at the time of transfer.

23 (c) Except as specified in paragraph (d) of this
24 section, any repair station that receives an aircraft,
25 airframe, aircraft engine, propeller, appliance, component,
26 or part that has not been approved for return to service

1 must obtain a statement in written, electronic, or other
2 form acceptable to the Administrator indicating that the
3 aircraft, airframe, aircraft engine, propeller, appliance,
4 component, or part is not approved for return to service.

5 (d) A repair station that receives an aircraft,
6 airframe, aircraft engine, propeller, appliance, component,
7 or part, for the purpose of performing maintenance,
8 preventive maintenance, or alteration must ensure the
9 receipt of the records sufficient to ensure completion of
10 the work to be performed.

11

12

13

14 Issued in Washington, D.C., on